MORROW + LORRAINE

2000

Project S

Practice overview (website version)

12/2021

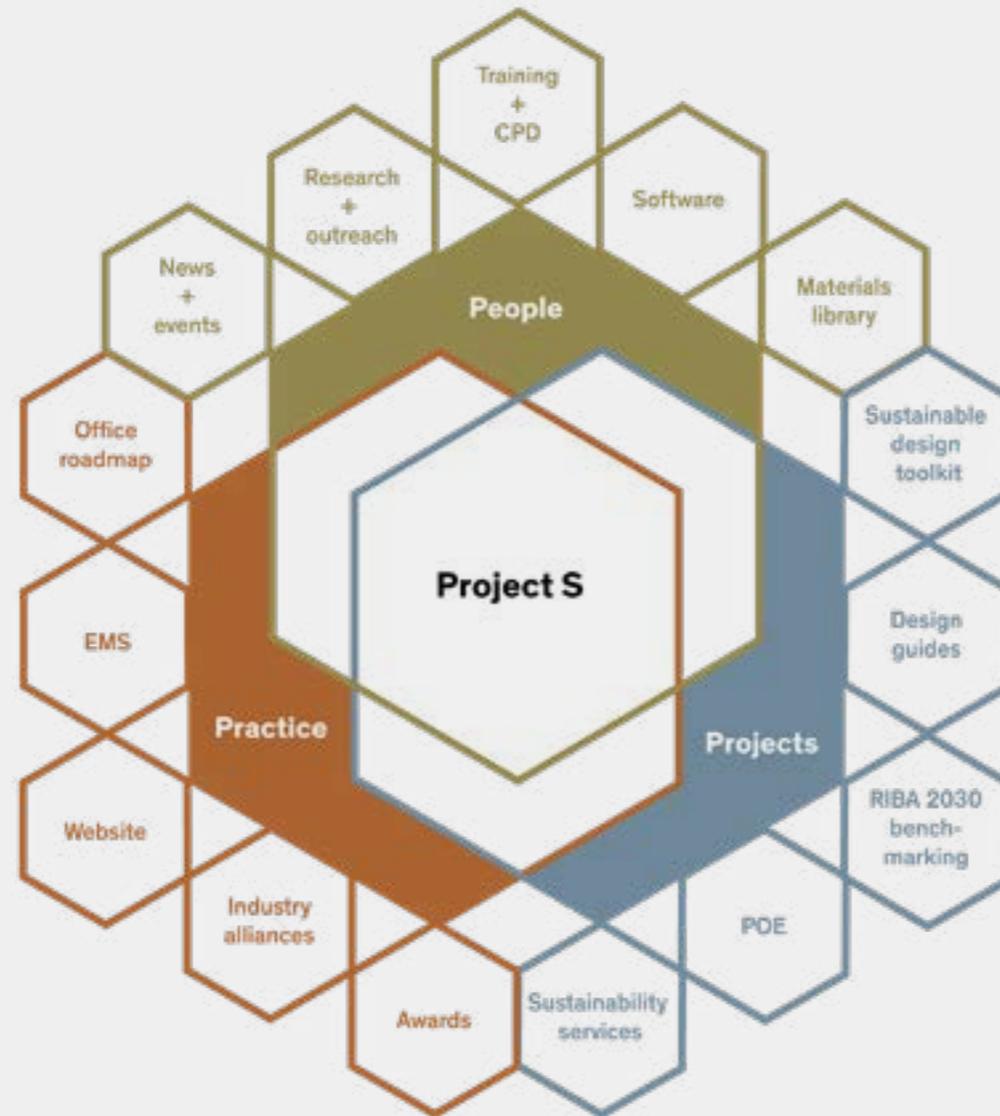# Contents

Project S: practice

Document Scope

An integrated approach

This report was researched and written as part of Project S in July 2021 to map out Morrow + Lorraine's Practice sustainability goals. It will exist with two parallel reports that will detail the goals of both the People and Projects aspects of Project S.

Context of report

The publication of the IPCC's sixth assessment report in the summer of 2021 further thrust the implications of the climate emergency into the public spotlight. It is imperative that Morrow + Lorraine future proof their business and participate in efforts to mitigate the negative effects of climate change.

Goals of this report

+ Outline up to date sustainability research in the 5 segments of Morrow + Lorraine's Practice (pictured, left)
+ Provide actionable recommendations for the acquisition of Morrow + Lorraine's short and long term sustainability Practice goals

Self-image

The way we run our practice has a meaningful effect on the world around us, and whilst project work involves the collaboration of many independent parties, our practice is just that: ours.

Ensuring our workspace is as sustainable as possible should be a vital part of our sustainability goals. Reducing our office's environmental impact, whilst at the same time creating a space where people want to work, will provide us with a brilliant opportunity to showcase our sustainability design principles, whilst also practicing what we preach.

1   A sustainable office

Our office space should be worn as a badge of honour and is the perfect opportunity to show our peers and clients how much we care about our sustainability agenda. Measuring, reducing, and reporting our carbon footprint, whilst creating a socially, economically, and environmentally sustainable office space for our employees should all be a part of Morrow + Lorraine's identity.

Target - achieve net zero by 2030 and design an office space in line with our own Sustainable Design Principles

2   A streamlined EMS

By finding a holistic solution that incorporates our carbon foot-printing needs, as well our existing EMS needs, we will be able to achieve other environmentally focused accreditations with ease in the future.

Target - procure the help of a one-size-fits-all EMS that can measure/ report our carbon footprint and certify ISO14001 & other accreditations

3   A collaborative practice

By creating a sustainability rhetoric that permeates our website and all internal & external documentation, we can begin to foster a sustainably oriented atmosphere amongst our staff, and start collaborating with our clients toward our shared sustainability goals

Target - outwardly communicate our sustainability agenda via our website and educate all of our staff about our sustainability goals

4   An internationally aligned practice

Whilst setting and achieving our own sustainability targets should form the bedrock of our sustainability agenda, aligning ourselves with internationally recognised sustainability initiatives will provide us with helpful PR, as well as another set of corroborated targets.

Target - align ourselves with internationally recognised sustainability initiatives

5   An award winning practice

If we are working towards our sustainability targets, we should we seeking recognition for our efforts.

Target - become a leader in the architectural world of sustainability by applying for and winning sustainability awards

1

OFFICE ROADMAP

A carbon neutral office

A

Office roadmap

Why carbon neutral?

What is carbon neutrality?

Imagine a bathtub overflowing with water - that's our planet's atmosphere. Burning fossil fuels (and producing carbon dioxide) is like turning on the tap and adding more water. Carbon sinks (confusingly for this metaphor) are things like plants and the oceans, which act as the plug at the bottom of the bath, where water (carbon) can escape the bath (atmosphere). Being carbon neutral is simply maintaining the level of water in the bath.

Moral obligation

We owe it to the rest of the world to play our part in the fight against the climate crisis. We also want everybody else to know that we're playing our part.

Financial benefits

Achieving carbon neutrality generally means using less fuel, and therefore reducing the cost of bills. Most companies that are aiming for carbon neutrality see carbon footprint reductions in the region of 5-10% each year. This translates to a 5-10% reduction in the cost of energy bills.

Aligning with our clients

Many of our clients have a sustainability focus, some have already committed to becoming "operationally net-zero" by 2030. With others sure to follow suit in the coming years, it's imperative that we align ourselves with our clients, and future proof our business.

1 Calculate → 2 Reduce → 3 Offset → 4 Engage

Fig.1 Recommended plan for enacting a carbon neutral office

Scope 1
Fuel used
Air conditioning
Business car travel

Scope 2
Electricity purchased

Scope 3
Paper used
Waste disposal
Supplier emissions
Commuting
Business air travel

Fig.2 Emission scope according to the Greenhouse Gas Protocol, adapted from EDIE.net

A carbon neutral office
01 Calculate

Carbon neutral or net-zero?

There is a distinct difference between being "carbon neutral" and being "net-zero", the details of which rely heavily on the diagram opposite. Carbon neutrality covers Scopes 1 & 2, whilst net-zero covers all 3. The most important difference in the context of this report is that achieving carbon neutral status is much easier, and much more affordable. Net-zero should be on our horizon, but carbon neutrality should be on our doorstep.

Measuring our footprint ourselves

We have already measured some of our carbon footprint for 2020 using the Carbon Trust's SME footprint calculator, the results of which can be seen on the following pages. Our carbon footprint is something that we can work to reduce annually.

The Carbon Trust's calculator only covers Scope 1&2 emissions, and so is a tiny proportion of our total emissions (for reference, more than 99% of Apple Incs. carbon footprint came from their Scope 3 emissions in 2020).
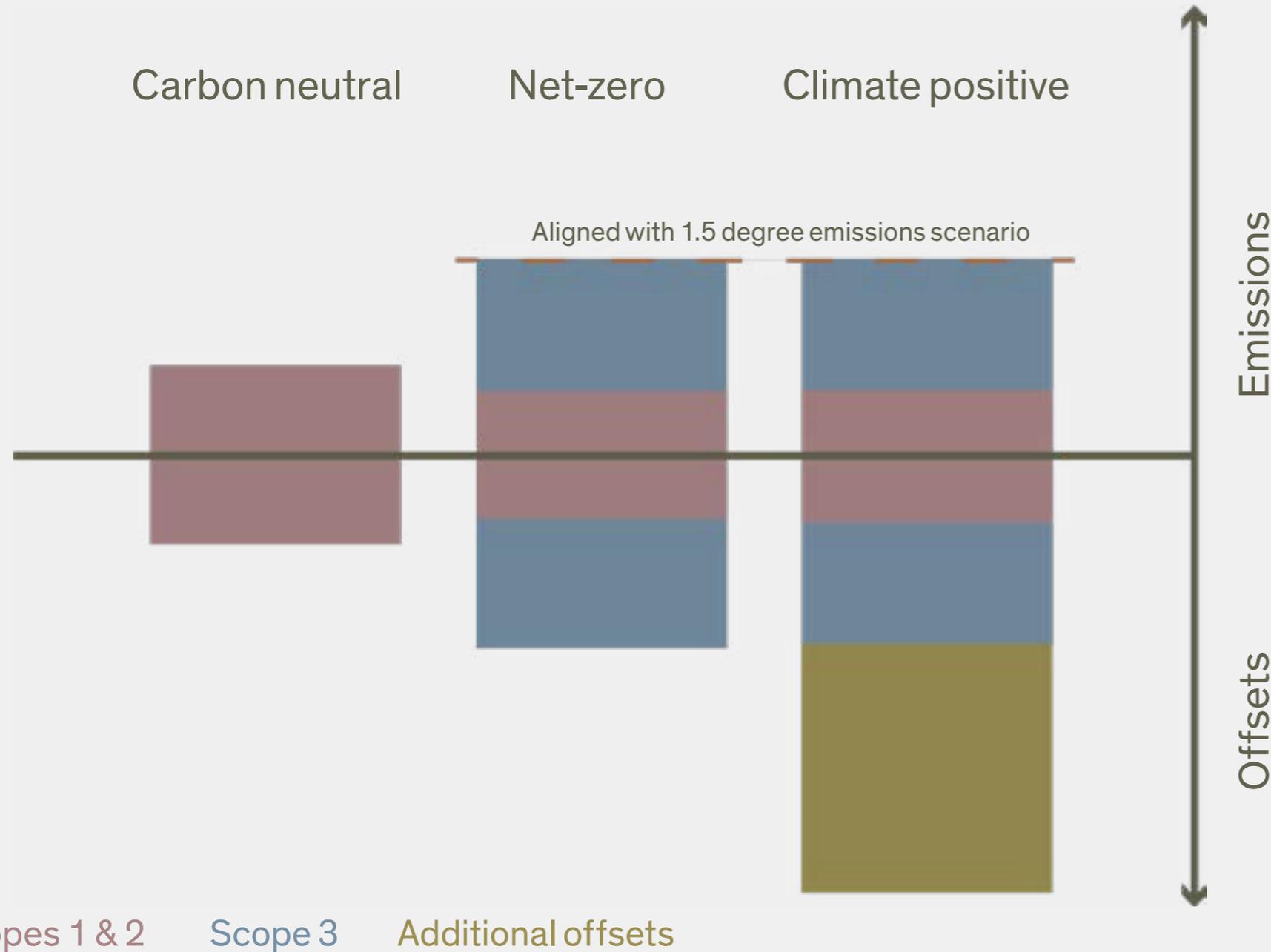
Measuring our Scope 3 emissions is not out of the question, but getting the help of third party consultants would likely be the best course of action due to the complexities of the process.

Getting help for Scope 3 emissions

Measuring Scope 3 emissions will be discussed in the "consultants" section.

Office roadmap

Deciphering terminologies

Carbon neutral   Net-zero   Climate positive

Aligned with 1.5 degree emissions scenario

Emissions

Offsets

Scopes 1 & 2   Scope 3   Additional offsets

Fig.3 Illustration of differing carbon terminologies, definitions taken from Ecologi.co.uk

Carbon-neutral
Purchasing carbon reduction credits equivalent to emissions released, without the need for emissions reductions to have taken place, typically refers to Scopes 1&2 emissions

Net-zero
Reducing emissions in line with latest climate science, and balancing remaining residual emissions through carbon removal credits, typically refers to Scopes 1,2 & 3 emissions

Climate positive
An activity goes beyond achieving net zero carbon emissions to actually create an environmental benefit by removing additional carbon dioxide from the atmosphere, sometimes referred to as carbon negative

Direct Control

Measure and publicly report
on carbon

Public commitment to a
carbon reduction target

Third-party verification of a
carbon reduction target

Scope 1 and 2 emissions
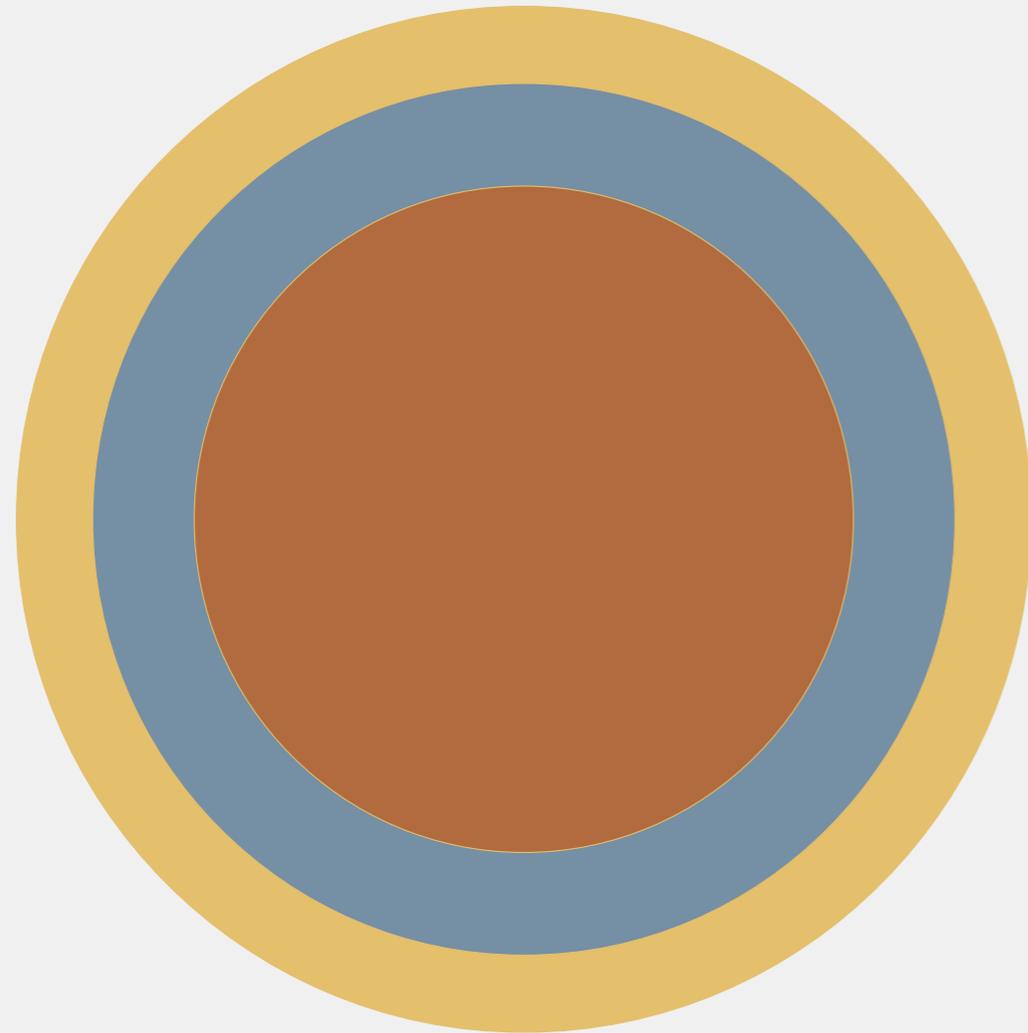Emissions from a company's own
operations

Scope 3 emissions
Emissions outside of a company's direct
control, however which it has the ability
to influence

Fig.4 Emissions reporting graphic, adapted from UKGBC

Office roadmap

27 Margaret Street carbon footprint

2018

Total emissions (kgCO2e):	9,244
Scope 1:	0%
Scope 2:	100%

2019

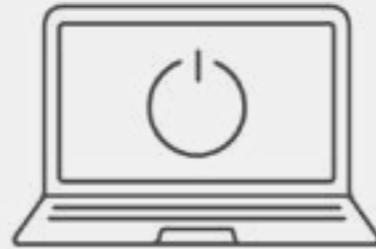|	
Total emissions (kgCO2e):	7,906
Scope 1:	0%
Scope 2:	100%

2020

Total emissions (kgCO2e):	6,030
Scope 1:	0%
Scope 2:	100%

*A typical passenger car will emit roughly 4000 kgCO2e each year
*Scope 3 emissions not calculated, but would represent vast majority of emissions

Fig.5 Proportionally sized carbon footprints for the Margaret Street office for 2018, 2019, 2020

Office roadmap

A carbon neutral office
02 Reduce

Why reduce?

The need to reduce our emissions goes beyond the obvious ethical obligation. In order to achieve Carbon Neutral or Net-zero status, an entity must be working to reduce their emissions as much as possible before offsetting, and be able to report those efforts publicly.

Setting targets

Consultants can easily provide targets for emissions reduction. Notably, Science Based Targets provide corporate entities with targets that align with the 1.5 degree Paris agreement (see later on in report).

Ways of reducing emissions (includes Scope 3):

+ Measure our carbon footprint each year
+ Ensure energy saving tactics are fit for purpose (lighting, insulation, programmable thermostats, low-E windows, etc.)
+ Unessential tech switched off during out of office hours (increase signage supporting the net-zero dream – staff buy in essentially)
+ Incentivising carbon neutral means of transport and assessing how people get to work in different seasons (ride to work schemes etc.)
+ Minimizing business trips (flying especially)
+ Assessing office supplies and working with sustainable suppliers, UK based where possible
+ Recycle as much as possible, making sure bins are properly labelled
+ Reduce paper usage wherever possible
+ Focus on employee education - what are we trying to achieve?
+ Continue to transition toward an all electric office
+ Reduce the footprint of our website

Fig.6 Different pathways for reduction

What is offsetting?

Where green energy cannot be procured, or where we wish to offset carbon from other parts of the organisation, finding effective ways to compensate for unavoidable carbon is an important part of achieving carbon neutrality, or eventually net-zero. As we move toward 2030, hopefully the need for offsetting will be reduced as the green technology sector diversifies.

Why offset?

A positive of offsetting is that it can be used (and is regularly) to achieve carbon neutrality immediately.

Verified Offsetting Services

In order to achieve some of the accreditations that will be discussed later on in this report, it's important to use verified offsetting services. Two of the most widely used units of carbon offsetting are Verified Carbon Units (VCUs) and Woodland Carbon Units (WCUs).

WCUs can be used in claims of carbon neutrality of an activity, product, service, building, project or event in the UK, and are used in woodland creation projects in the UK.

Fig.7 Picture taken from BrewDog's climate positive campaign

Climate positive

Being climate positive (or carbon negative) refers to an entity, company, or person removing more carbon dioxide from the atmosphere than they emit. It is an extension of being net-zero, and is typically achieved by offsetting projects.

A case study: BrewDog

The beer company BrewDog recently launched a campaign stating they were a carbon negative company. The brewer's long-term plans will see the business offset its carbon through owned assets and, as part of these efforts, it has purchased 2,050 acres of Scottish Highlands just north of Loch Lomond, to create the BrewDog Forest. Here, it plans to plant one million trees over the next few years in 400 hectares of land, alongside restoration of 650 acres of peatland — with both investments recognised as effective vehicles for carbon offset.

In our context

It is fair to say that we are not going to purchase an entire forest, but that's because our carbon footprint is absolutely minuscule in comparison to BrewDog's. Once we have properly reported our carbon footprint, and have made an honest attempt at including our Scope 3 emissions, we will be able to make the same pledge as BrewDog. It's simply a matter of buying the required amount of offsetting.
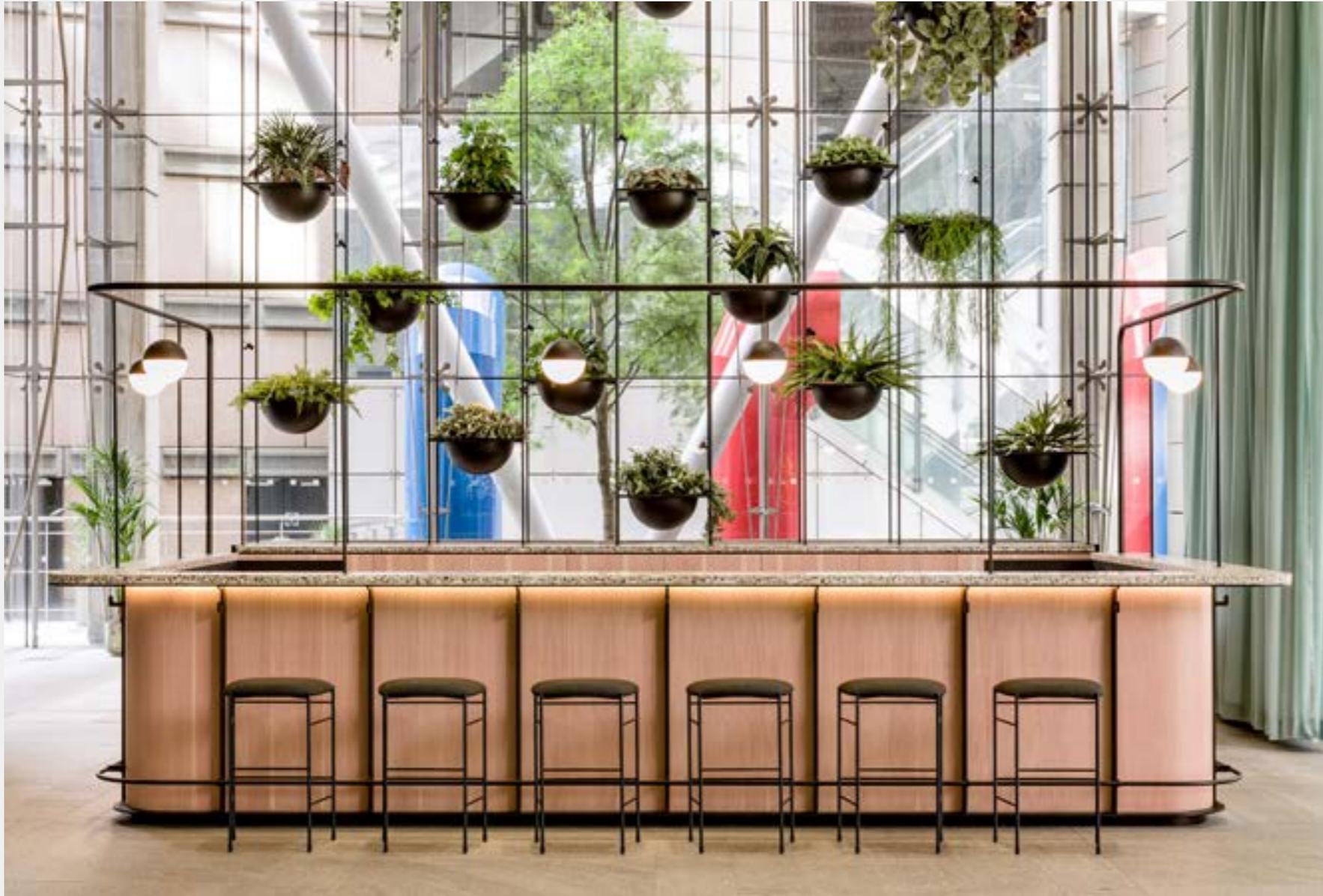
Project S: practice
Office roadmap

Fig.8 Completion photography of 88 Wood Street

A carbon neutral office
88 Wood Street

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88 Wood Street

The new office space presents us with an amazing opportunity to embrace our design principles and practice what we preach to the very best of our ability as designers.

What can be learnt from Margaret Street?

+ General user (staff) feedback
+ Commute information
+ Operational performance against industry benchmarks
+ Operational emissions: trends and analytics
+ Procurement analysis

How?

+ Send POE user survey to our own staff, to receive formalised qualitative data about the Margaret Street office
+ Compare our carbon footprint to industry benchmarks
+ Analyse procurement wastage/ include in staff questioning

Why?

For the new office to be a successful office space, we need to take all of the best aspects of the old office, and leave behind any of the bad ones. By learning from our past, we can inform our future.

Project S: practice
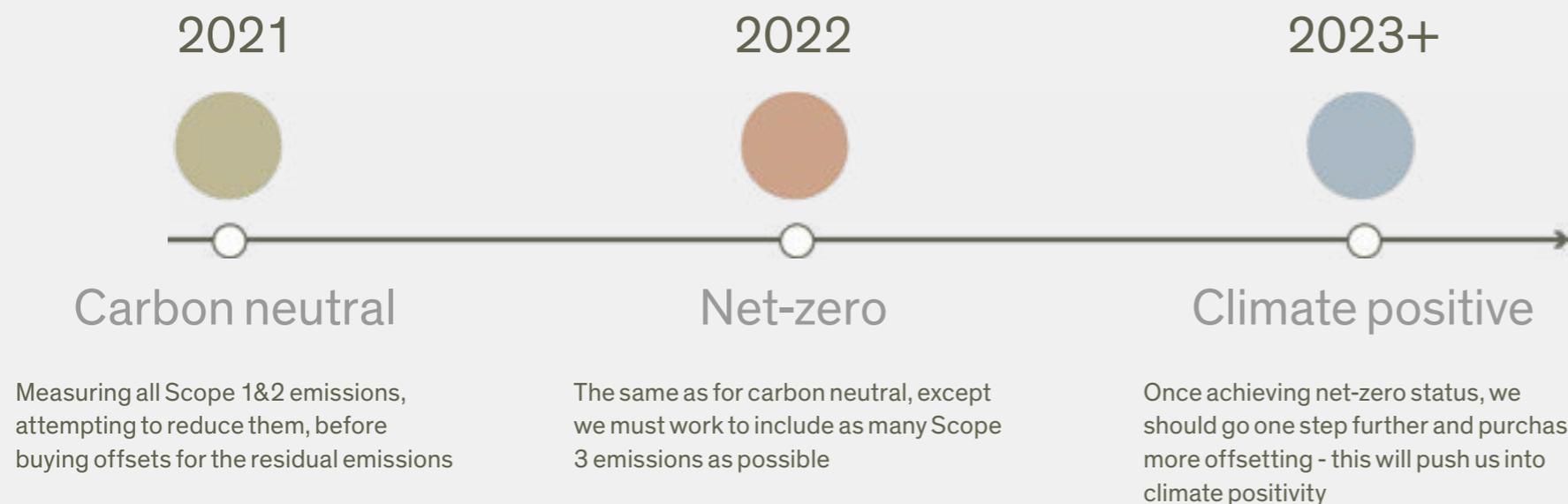# Office roadmap

A carbon neutral office
Recommendations

Annual office carbon footprint reduction targets

The following steps should be carried out each year to ensure Morrow + Lorraine's carbon footprint shrinks. We should commit ourselves to a 5% reduction each year, or better yet, a promise of net-zero by 2030 (includes Scope 3 emissions).

For reference, the reduction seen from 2018 to 2019 was a 14% reduction. However, reductions become more difficult as the years go by, as easy fixes are actioned. A reduction of 15% annually would be almost impossible to maintain, due to the iterative nature of emissions reduction.

Scopes 1&2

+ Measure the scope 1&2 emissions of the office
+ Identify any trends in the emissions data
+ Make changes to office where possible to mitigate against unnecessary scope 2 emissions
+ Commit to a verified offsetting service at the end of the calender year to offset our known scope 1&2 emissions

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Scope 3

+ Decide whether we want to measure our Scope 3 emissions (only necessary if we want to achieve net-zero)
+ If yes, seek the assistance of a consultant to help use measure our Scope 3 emissions
+ Commit to reducing our Scope 3 emissions by adopting UK based suppliers where possible, and reducing waste as much as possible in the office
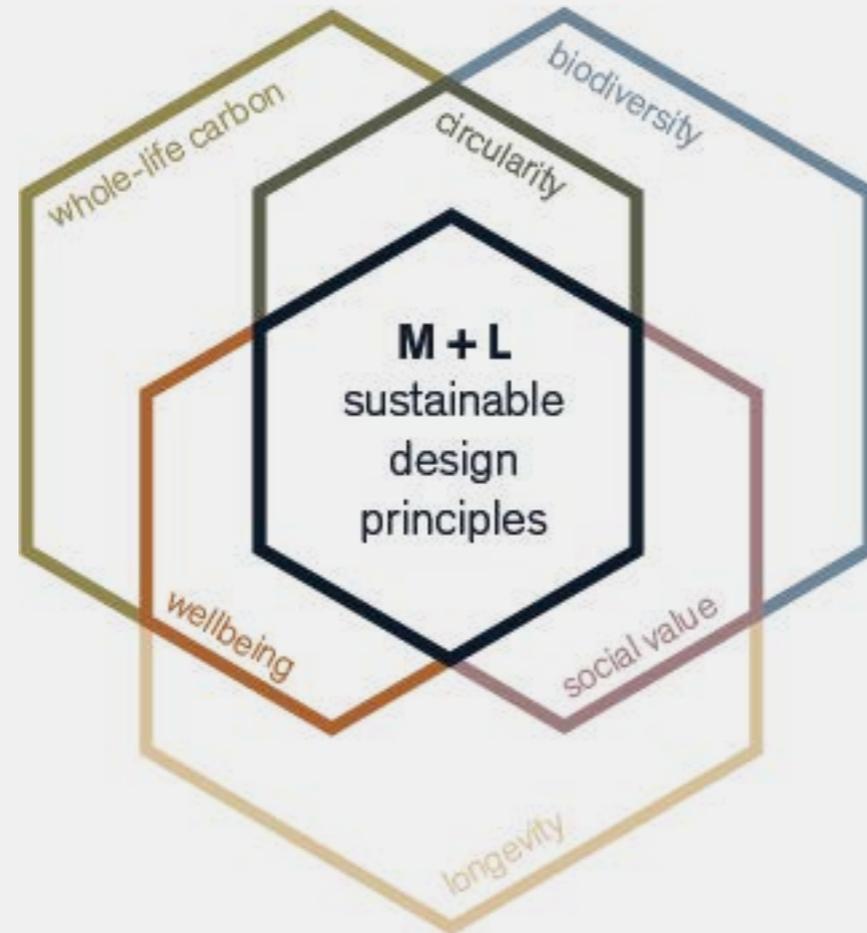
2021

2022

2023+

Carbon neutral

Net-zero

Climate positive

Measuring all Scope 1&2 emissions, attempting to reduce them, before buying offsets for the residual emissions

The same as for carbon neutral, except we must work to include as many Scope 3 emissions as possible

Once achieving net-zero status, we should go one step further and purchase more offsetting - this will push us into climate positivity

Fig.9 Carbon reduction time-line

Applying our own Sustainable Design Principles

Measuring, reducing, and reporting our carbon emissions relates entirely to our first Sustainable Design Principle, whole-life carbon. With a move to a new office on the horizon, we have the opportunity to apply the rest of our Sustainable Design Principles to the space we'll be working in every day.

Practice expertise

Our Sustainability Team consulted with our own WELL AP to provide suitable sustainable design recommendations for the new office at 88 Wood Street, which are detailed on the next page.

Fig.10 MLA Sustainable Design Principles

Office accreditations

B

Project S: practice
Office roadmap

Office accreditations
Why do we need accreditations?

Setting targets

Achieving accreditations typically involves meeting targets set by the accreditor. This means we will have science based targets seated in rigorous research. Targets will often be in line with internationally recognised initiatives.

Leaders in our field

We want to be seen as leaders in sustainability amongst our architectural peers, accreditations are a meaningful way of creating this image, whilst delivering sustainable practices for our office space.

Achieving office accreditations shows clients we are serious about sustainability, and shows that we practice what we preach.

What do we already have?

Currently we have achieved ISO14001 accreditation, details of which can be found later on in this section.
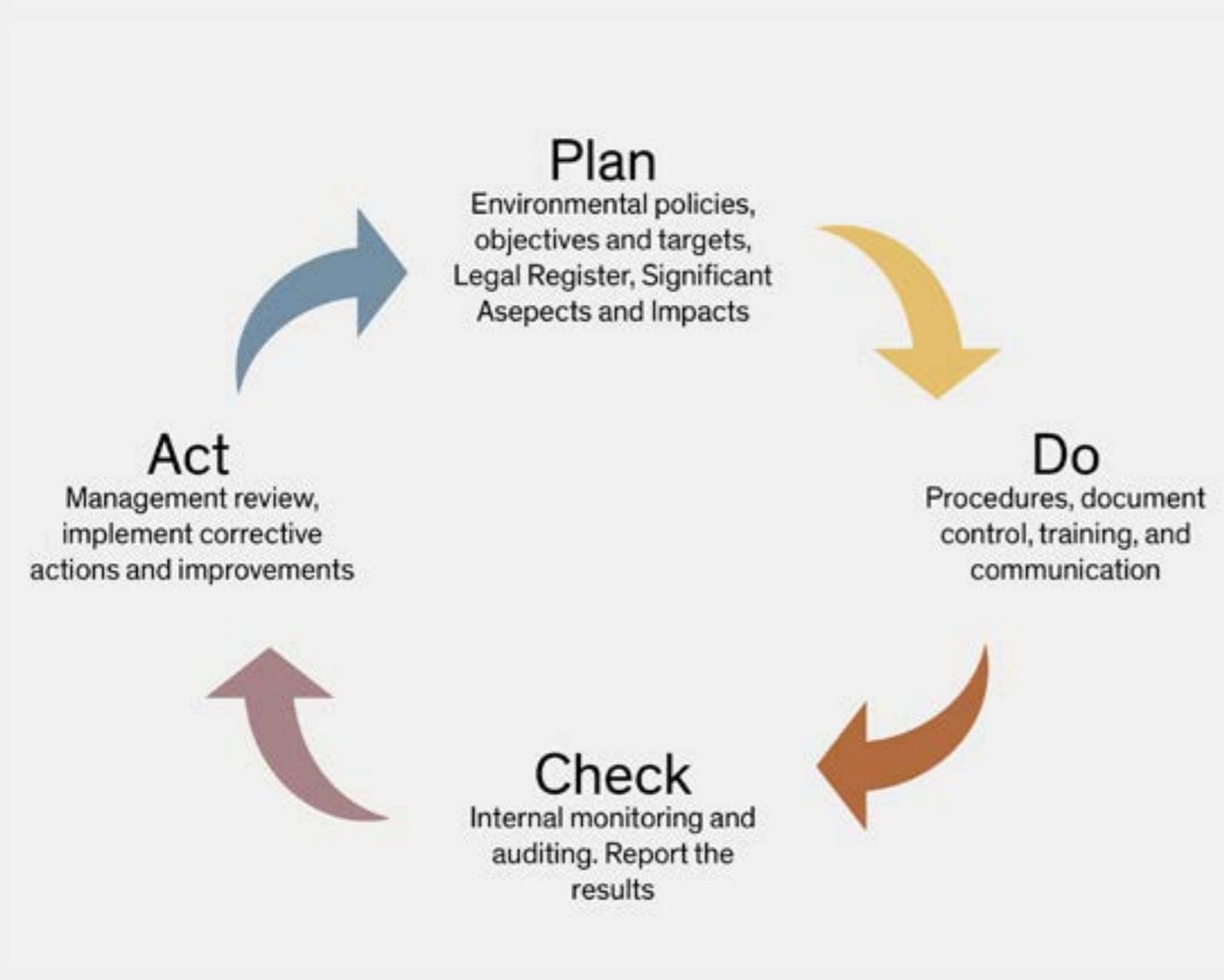
Project S: practice
Office roadmap

Description

British Assessment Bureau criteria pertaining to environmental management systems.

ISO 14001:2015 specifies the requirements for an environmental management system that an organization can use to enhance its environmental performance. ISO 14001:2015 is intended for use by an organization seeking to manage its environmental responsibilities in a systematic manner that contributes to the environmental pillar of sustainability.

ISO 14001:2015 helps an organization achieve the intended outcomes of its environmental management system, which provide value for the environment, the organization itself and interested parties. Consistent with the organization's environmental policy, the intended outcomes of an environmental management system include:

· enhancement of environmental performance;

· fulfilment of compliance obligations;

· achievement of environmental objectives.

Plan
Environmental policies, objectives and targets, Legal Register, Significant Asepects and Impacts

Do
Procedures, document control, training, and communication

Check
Internal monitoring and auditing. Report the results

Act
Management review, implement corrective actions and improvements

Fig.11 Fundamentals of a environmental management system

Office roadmap

Certified B Corporation
Pending

Description

[Certified B Corporations](#) are a new kind of business that balances purpose and profit. They are legally required to consider the impact of their decisions on their workers, customers, suppliers, community, and the environment. This is a community of leaders, driving a global movement of people using business as a force for good.

Certified B Corps are essentially companies that believe in accountability in sustainable practices. Their tag-line is "all companies compete not only to be the best in the world, but to be the best for the world".

Office roadmap

Planet Mark
Pending

Description

Planet Mark are consultants who help measure a company's footprint, by adopting their services, organisations are given The Planet Mark. The certification recognises continuous improvement, encourages action and builds an empowered community of like-minded individuals who make a world of difference. You must commit to a 2.5% annual reduction in carbon emissions.

Measure

We help you collate readily available data, so you can achieve certification from year one.

At Planet Mark we measure what matters, giving you a clear picture of your environmental impacts, social contributions and international influence. It is up to every individual and corporation to take ownership of their respective impacts.

Engage

Our engagement experts will unlock your employees' passion to take ownership of environmental impacts.

Employees are the key to achieving your sustainability goals. To help you put a sustainability strategy in place we provide webinars, workshops, toolkits and events to build knowledge and skills within your team. Together, we celebrate every commitment and champion every success.

Communicate

We help you communicate your achievements, so the world can see the difference you're making.

We know that it is not enough to develop change in pockets of isolation, we need to share our successes and challenges transparently and in doing so empower others to do the same. By giving you the tools to share your own progress and achievements, we'll help you communicate with clarity.

2

INDUSTRY SUPPORT

What do we mean by "Industry support"?

Collaborating with and showing our support to other organisations or initiatives, generally with a sustainability focus.

Why do we need to show our support?

Pledging our support to international initiatives is often very easy to do, and can be a meaningful PR piece. Using the logos of other companies and initiatives that we support gives our clients and peers an idea of our place in industry.

Why do we need the support of others?

By aligning ourselves with internationally recognised sustainability initiatives, we will have access to ratified science-based targets, as well as a plethora of sustainability resources.

Project S: practice
Industry support

RIBA Climate Challenge 2030

Description

The RIBA has developed voluntary performance targets for operational energy use, water use and embodied carbon. These performance targets form the basis of the 2030 Climate Challenge which the RIBA has been developed in consultation with other professional UK construction bodies

Commitments

+   Consider the RIBA 2030 Climate Challenge Benchmarking when undertaking buildings accounting for embodied and operational carbon as well as potable water-use and health and wellbeing factors.
+   Monitor and report performance outcomes for buildings in design and operation where able.

Description

Architects Declare is an international network of architectural practices committed to addressing the climate and biodiversity emergency.

Commitments

+ Raise awareness of the climate + biodiversity emergencies and the urgent need for action amongst clients and supply chains.
+ Advocate for faster change in our industry towards regenerative design practices and a higher Governmental funding.
+ Establish climate + biodiversity mitigation principles as the key measure of our industry's success: demonstrated through awards, prizes and listings.
+ Share knowledge + research on an open-source basis.
+ Evaluate all new projects against the aspiration to contribute positively to mitigating climate breakdown, and encourage our clients to adopt this approach.
+ Upgrade existing buildings for extended use as a more carbon efficient alternative to demolition and new build whenever viable.
+ Include life cycle costing, whole life carbon modelling and post occupancy evaluation as part of our basic scope of work, to reduce both embodied and operational resource use.
+ Adopt more regenerative design principles in our studios, with the aim of designing architecture and urbanism that goes beyond the standard of net zero carbon in use.
+ Collaborate with engineers, contractors and clients to further reduce construction waste.
+ Accelerate the shift to low embodied carbon materials in all work.
+ Minimise wasteful use of resources in architecture and urban planning, both in quantum and in detail.
+ Support those who are working for climate justice and strive to ensure equity and an improved quality of life for all.

The
greenest
building
is the
one that
already
exists

#RetroFirst

AJ

Current initiatives supported
AJ Retro-first

Description

The AJ's Retro-first campaign, now endorsed by over 200 organisations, calls for 'government action' in areas such as taxation, policy and procurement to encourage retrofitting and refurbishing existing buildings in order to slash carbon emissions

Commitments

+   Design with reuse in mind first, and new build second
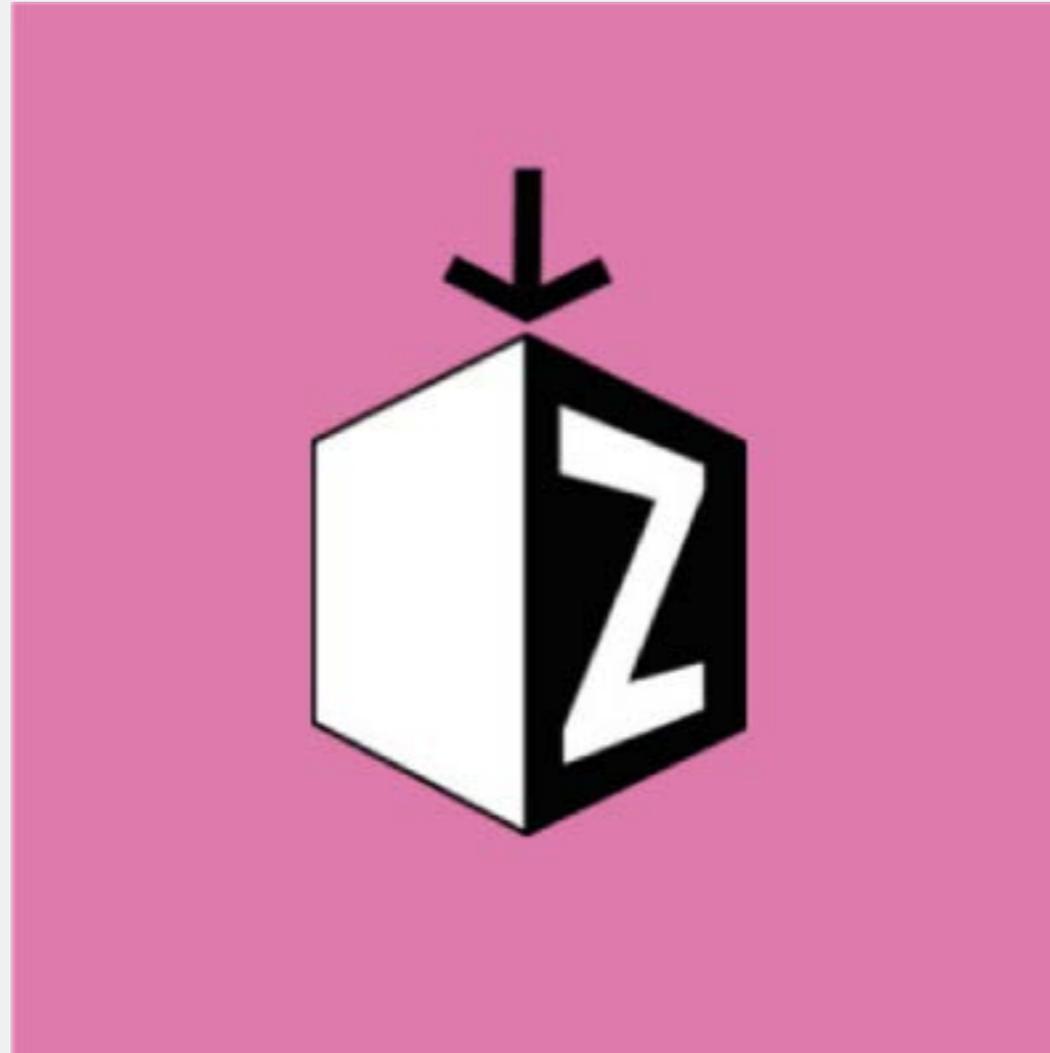
Description

This proposed Building Regulations amendment 'Part Z' and Approved Document Z outlines requirements on the assessment of whole life carbon emissions, and limiting of embodied carbon emissions, for all major building projects.

Commitments

\+ Support for the regulation of embodied carbon

Description

Organisations that join SteelZero make a public commitment to procure 100% net zero steel by 2050. By harnessing their collective purchasing power and influence, we're sending a strong demand signal to shift global markets and policies towards responsible production and sourcing of steel.

Commitments

+   Specifying 100% net zero steel by 2050 and 50% net zero steel by 2030 by meeting one or a combination of:
+   ResponsibleSteel™ Certified Steel, or equivalent
+   Steel produced by a steel-making site where the site's corporate owner has medium-term, quantitative science-based GHG emissions target for the corporation
+   Low Embodied Carbon Steel, with a defined specific emissions intensity which takes into account the proportion of end of life scrap

Description

Businesses of all sizes around the UK are committing to do their bit to cut carbon emissions and protect the planet. The SME Climate Commitment is the UK government's partnership with business owners and respected climate groups.

Commitments

+   Halve our greenhouse gas emissions before 2030
+   Achieve net zero emissions before 2050
+   Disclose our progress on a yearly basis

Description

The AECB (Association for Environment Conscious Building) is a network of individuals and companies with a common aim of promoting sustainable building. Running since the 1980's the AECB are the largest and oldest network for sustainable building.

What do we do?

The AECB brings together contractors, trades people, self builders, architects, designers, engineers, manufacturers, housing associations, local authorities and academics to help develop, share, train and promote sustainable building best practice. The AECB promotes excellence in design and construction.

Why do we do it?

To help educate and help effect deep lasting change within the construction industry. The AECB are part of the change to help better our lives (as well as others and the planet) & well being through comfort, health and sustainability in our homes. The AECB is run by its members and is an independent, not for profit organisation

Description

UKGBC is uniting the UK building industry using sustainability as a catalyst to positively transform the places people use every day. A charity with over 500 member organisations spanning the entire sector, UKGBC represent the voice of the industry's current and future leaders who are striving for transformational change.

The UKGBC's mission is to radically improve the sustainability of the built environment, by transforming the way it is planned, designed, constructed, maintained and operated.

UKGBC's vision

A built environment 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

Industry support

Heart of the City

Description

Heart of the City supports SMEs to be a force for good. Through workshops, masterclasses and expert mentoring, HOTC helps take steps towards making responsible business a meaningful part of work.

The foundation programme helps look at how businesses can support local communities, reduce environmental impacts, build a more diverse workforce and look after employees' wellbeing — and helps put it all into a strategy that'll help businesses succeed!