

WORLD  CQI |  IRCA
QUALITY WEEK 2022

**Quality conscience:
doing the right thing**

7 – 11 NOVEMBER 2022

TELL US HOW YOU WILL
BE CELEBRATING #WQW22.

Creating Positive Social Impact

Peter Anderson

Troup Bywaters + Anders

Peter Anderson

Managing partner

- + UK Green Building Council member
- + Member of UN SDG Advocacy Group
- + UKGBC Task Group-Nature-based solutions
- + Camden Climate Change Alliance Board member
- + Signatory of World Green Building Council Whole-life Advancing net zero pathway



Contents

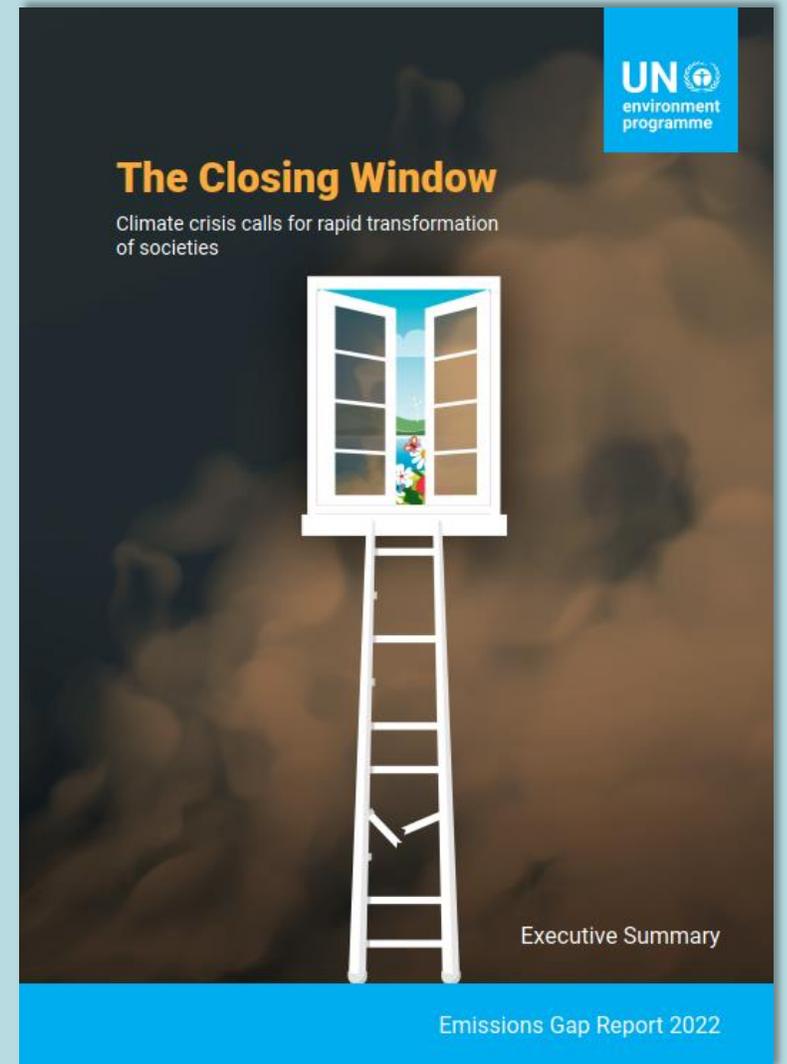
- + The imperative for action
- + The role of business
- + Understanding your industry
- + The quality system
- + Our journey
- + Restorative thinking



The imperative for action

- + The climate crisis is part of the triple planetary crisis of climate change, pollution and biodiversity loss
- + Very limited progress in reducing the immense emissions gap for 2030

United Nations Environment Programme (2022). *Emissions Gap Report 2022: The Closing Window — Climate crisis calls for rapid transformation of societies — Executive Summary*. Nairobi. [Emissions Gap Report 2022 \(unep.org\)](https://www.unep.org/emissions-gap-report-2022)



The imperative for action

Global Carbon Budget

- + Global fossil CO₂ emissions in 2021 returned to pre-covid-19 levels according to the Global Carbon Project
- + The remaining carbon budget to limit global warming to 1.5 and 2.0 °C has reduced to 120 GtC (420 GtCO₂), and 350 GtC (1270 GtCO₂) respectively from the beginning of 2022*

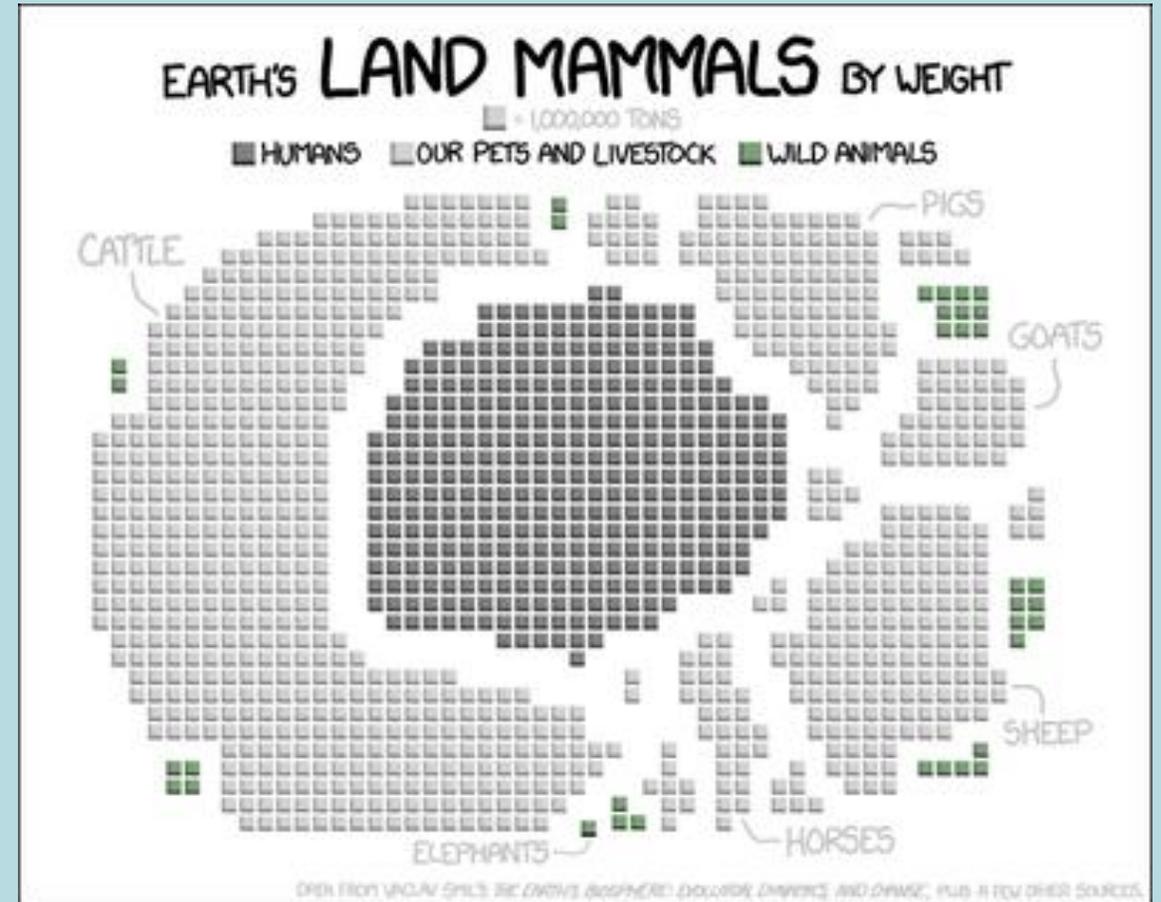
*50 % likelihood



The European Space Agency climate office
The Global Carbon Budget <https://youtu.be/z-nnnMWtkls>

The imperative for action

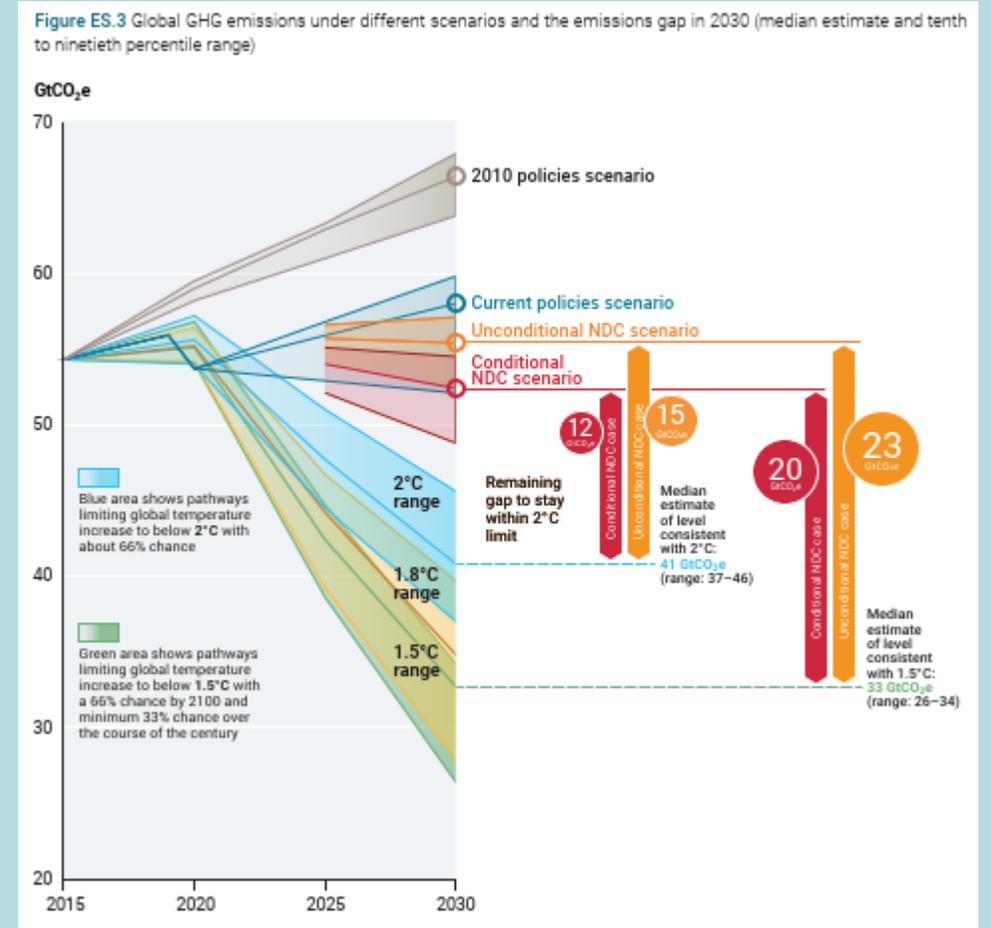
- + One Gigatonne = 1,000,000,000 metric tonnes
- + One Gigatonne = 1,000,000,000,000 kilograms
- + A gigatonne is the mass of all the land mammals in the world other than humans. It's also roughly twice the mass of all of the humans in the world
- + **So we emit 100 times the weight of the human race in greenhouse gases every year**



Source: Energy Education – University of Calgary
<https://energyeducation.ca/wiki/index.php?title=Gigatonne&oldid=7427>

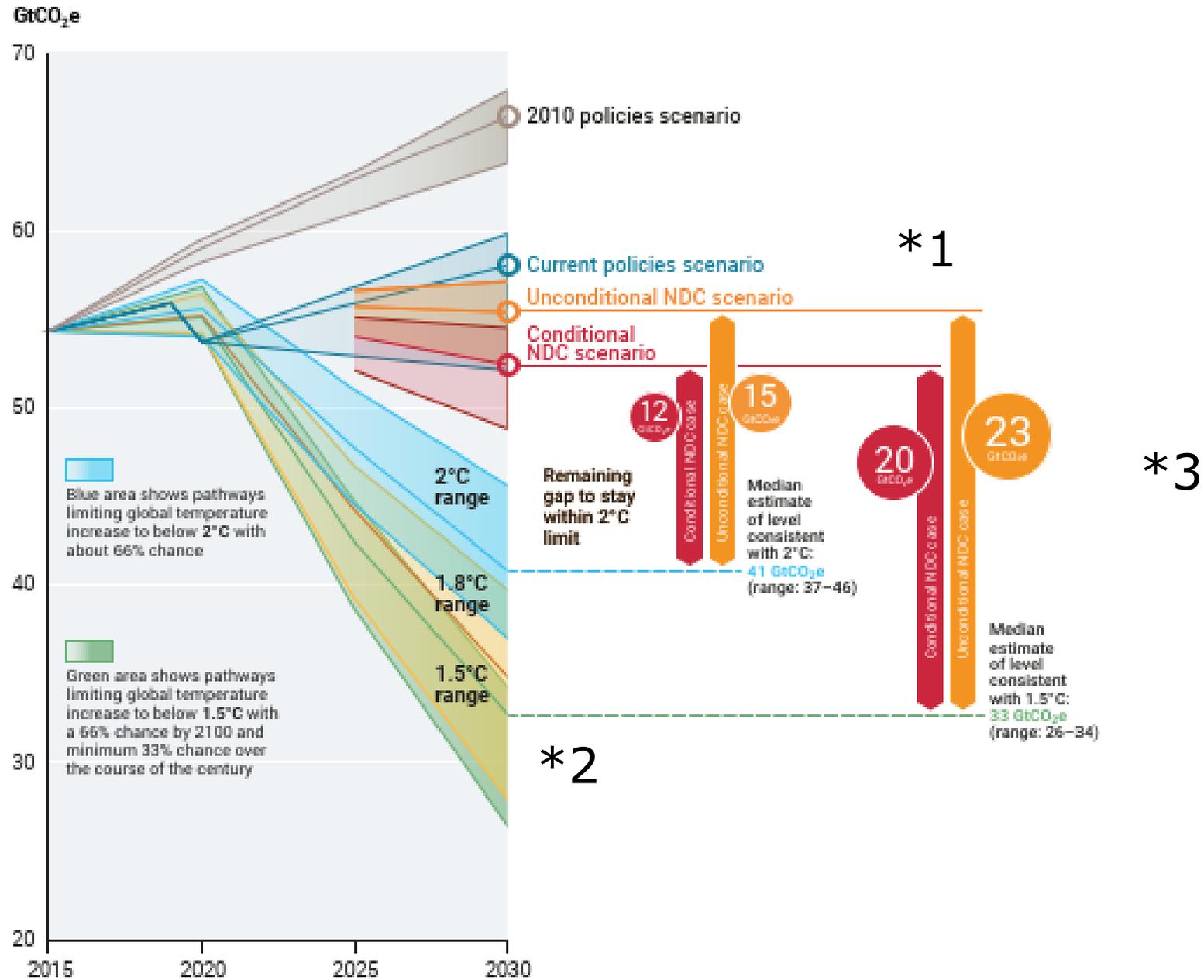
The imperative for action

- + Very limited progress in reducing the immense emissions gap for 2030



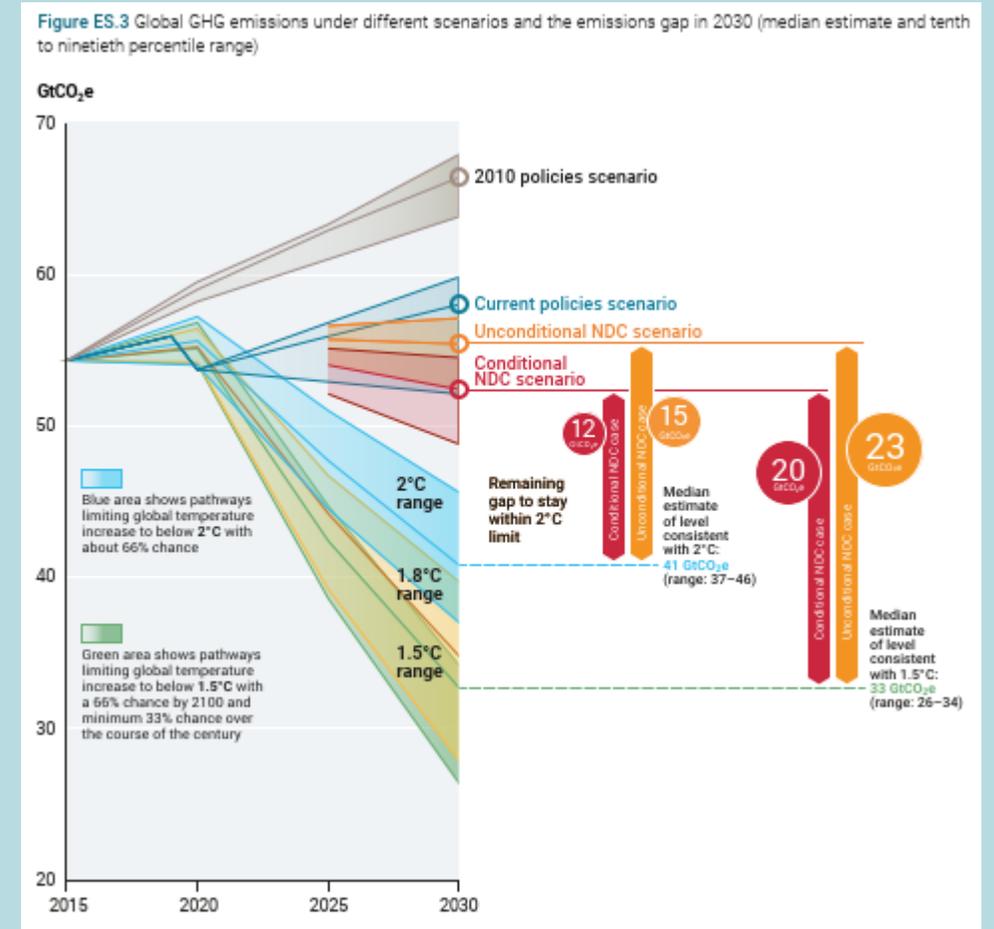
United Nations Environment Programme (2022). *Emissions Gap Report 2022: The Closing Window — Climate crisis calls for rapid transformation of societies — Executive Summary*. Nairobi. <https://www.unep.org/emissions-gap-report-2022>

Figure ES.3 Global GHG emissions under different scenarios and the emissions gap in 2030 (median estimate and tenth to ninetieth percentile range)



The imperative for action

- + Very limited progress in reducing the immense emissions gap for 2030
- + Policies currently in place with no additional action are projected to result in global warming of 2.8°C over the twenty-first century
- + To get on track for limiting global warming to 1.5°C, global annual GHG emissions must be reduced by 45 per cent compared with emissions projections under policies currently in place in just eight years, and they must continue to decline rapidly after 2030, to avoid exhausting the limited remaining atmospheric carbon budget.

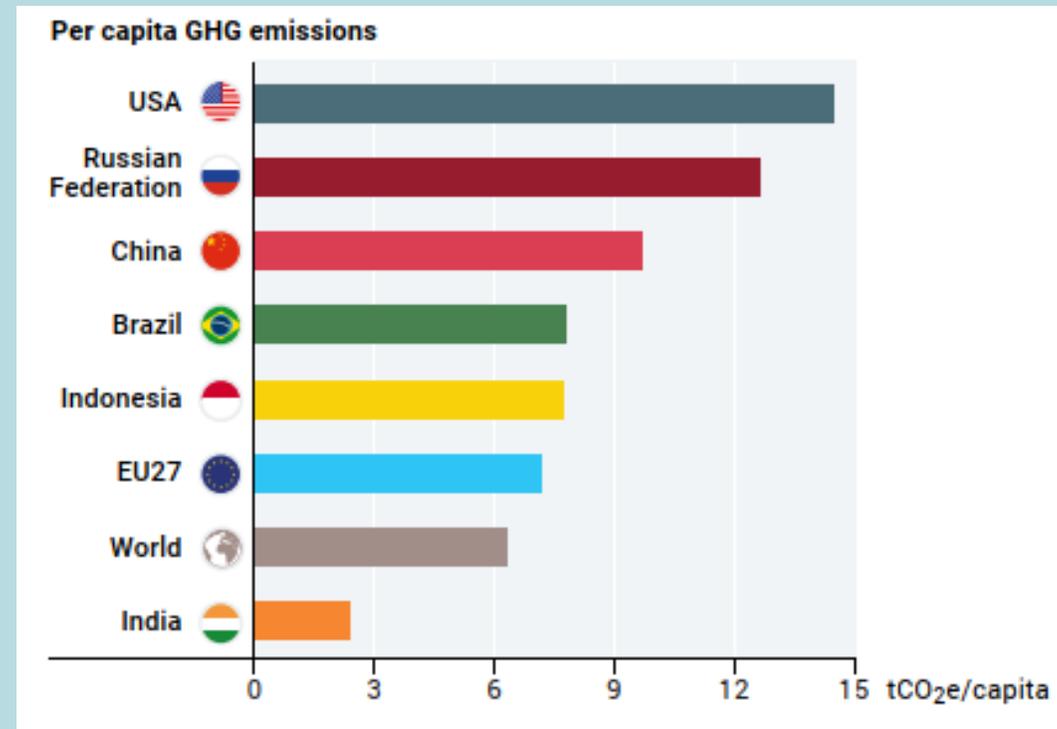


United Nations Environment Programme (2022). *Emissions Gap Report 2022: The Closing Window — Climate crisis calls for rapid transformation of societies — Executive Summary*. Nairobi. <https://www.unep.org/emissions-gap-report-2022>

The imperative for action

Personal GHG emissions

- + Collectively, G20 members are responsible for 75% of global GHG emissions
- + World average per capita GHG emissions were 6.3 tons of CO₂ equivalent (tCO₂e) in 2020.
- + So, we all have a part to play in bringing our personal and business carbon emissions down.

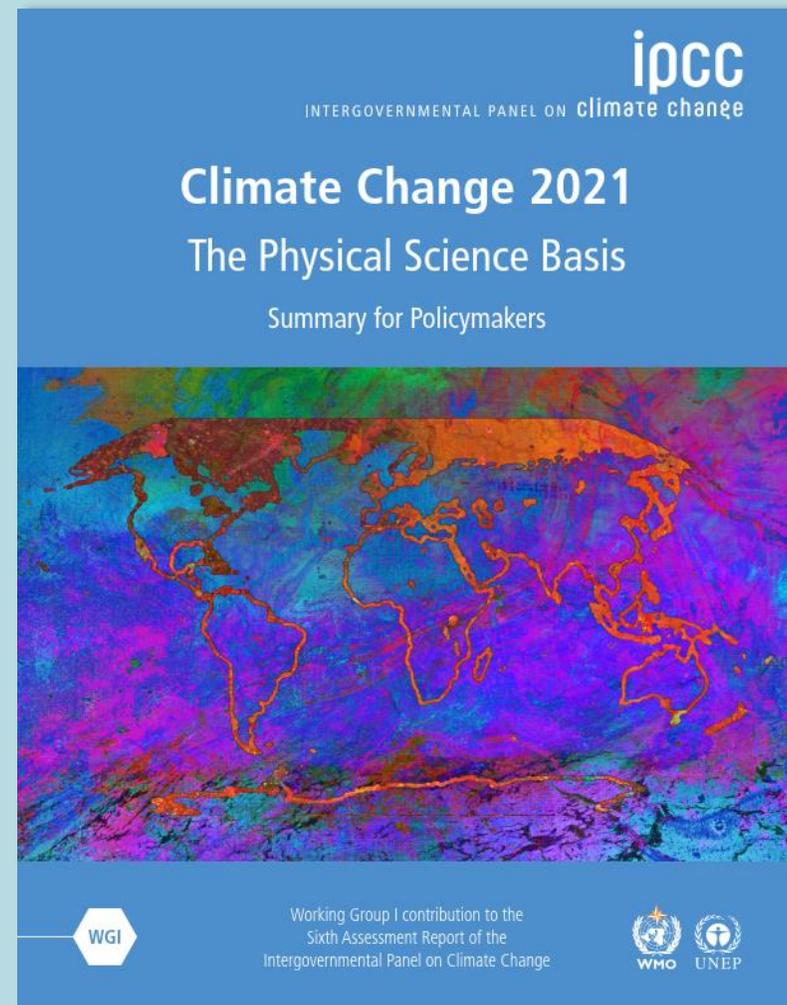


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The imperative for action

IPCC 2021 report

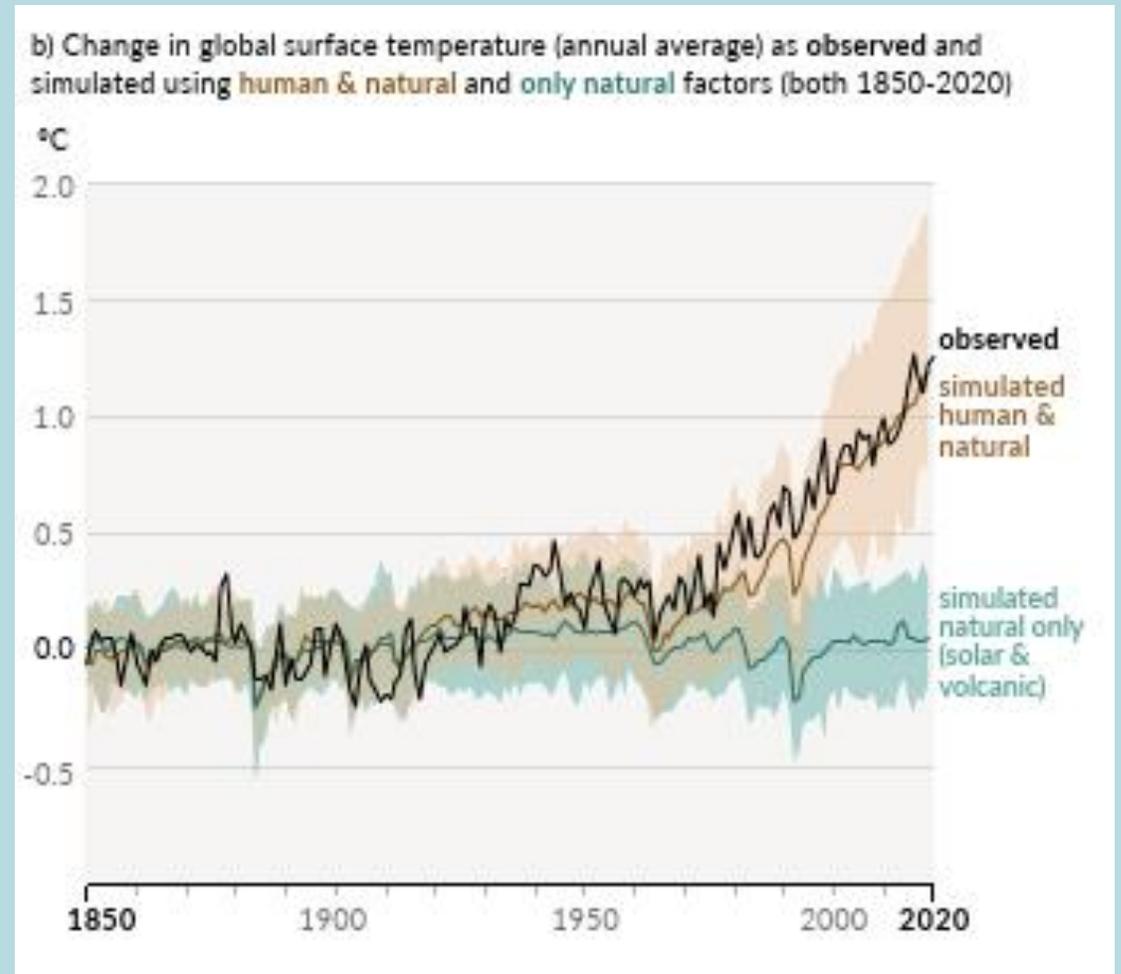
*Intergovernmental Panel on Climate Change
Climate Change 2021 - The Physical Science Basis
Summary for Policymakers 7 August 2021*



The imperative for action

IPCC 2021 report

- + 'It is unequivocal that human influence has warmed the atmosphere, ocean and land.'
- + CO₂ – higher than anytime in the last 2 million years

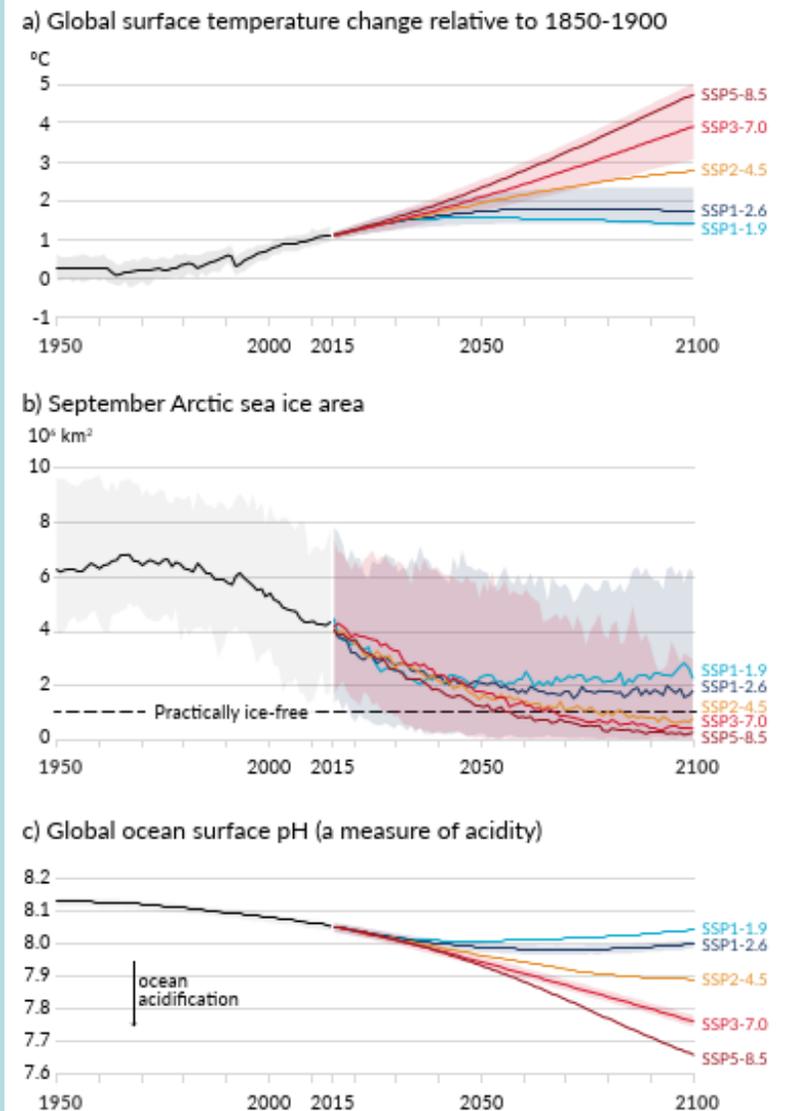


The imperative for action

IPCC 2021 report

- + 'It is unequivocal that human influence has warmed the atmosphere, ocean and land.'
- + CO₂ – higher than anytime in the last 2 million years
- + Global surface temp up by 1.1°C
- + Sea levels have risen by 0.2m
- + All far exceed the natural multi-millennial changes
- + All scenarios predict increases in GST and 1.5°C & 2°C will be exceeded unless there are deep reductions in CO₂ and greenhouse gases
- + As CO₂ increases and sea temps rise the ocean is less effective as a carbon sink

*Intergovernmental Panel on Climate Change
Climate Change 2021 - The Physical Science Basis
Summary for Policymakers 7 August 2021*



The imperative for action

Resources

- + We are consuming far in excess of the world's available natural resources

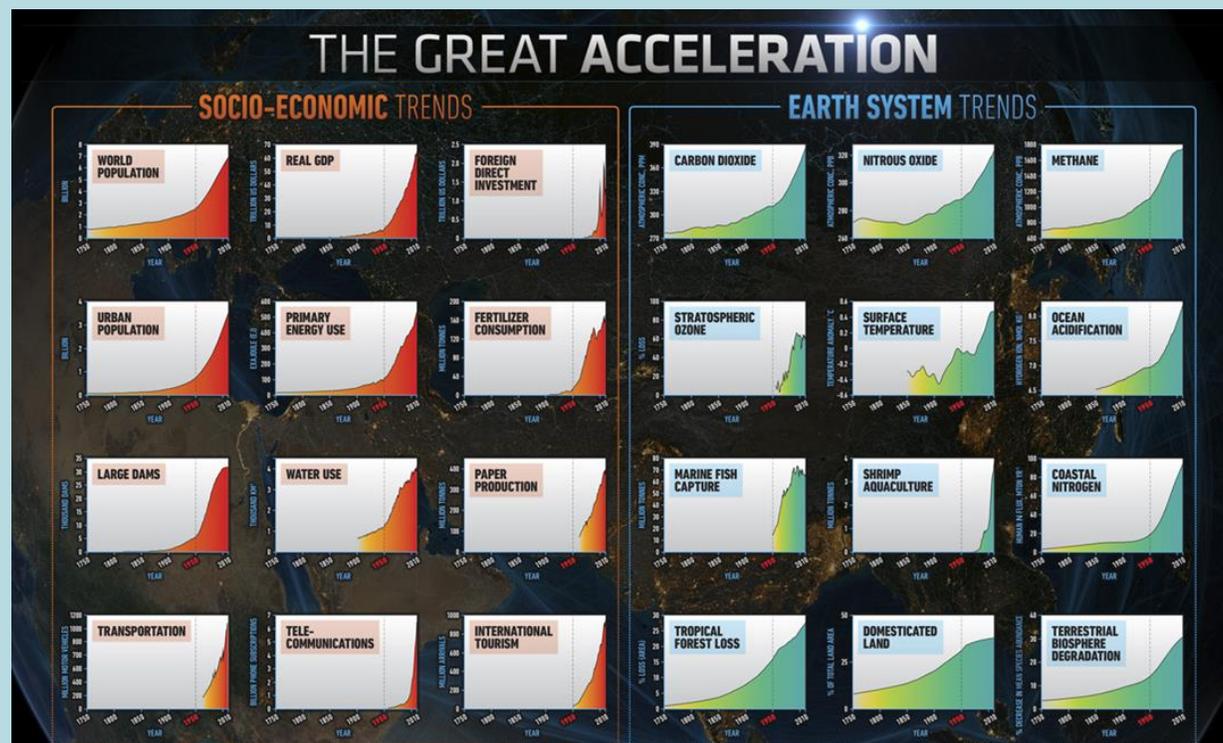


Image over by Johan Rockström, "Bounding the Planetary Future: Why We Need a Great Transition," Great Transition Initiative (April 2015), <https://greattransition.org/publication/bounding-the-planetary-future-why-we-need-a-great-transition>

THE GREAT ACCELERATION

SOCIO-ECONOMIC TRENDS



EARTH SYSTEM TRENDS



The imperative for action

- + We are consuming far in excess of the world's available natural resources
- + The climate system is more extreme as a consequence



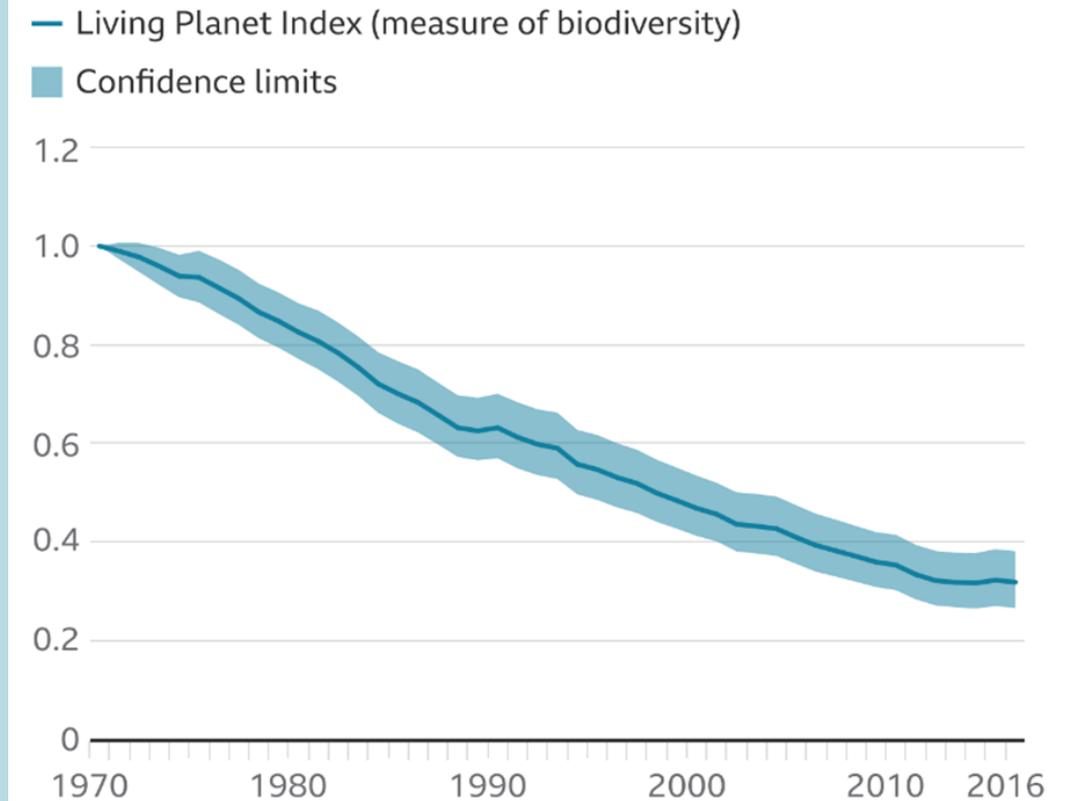
The imperative for action

Humanity has and continues to disrupt natural systems by :-

- + Deforestation
- + Planting mono-cultures
- + Chemical pollution
- + Soil erosion
- + Loss of habitat
- + Bringing species to extinction
- + Creating pathways for pathogens

The Living Planet Index is used by the UN Convention on Biological Diversity to provide a measure of vertebrate species from around the world via population recording, trends etc.

How wildlife has declined, 1970-2016



Source: ZSL

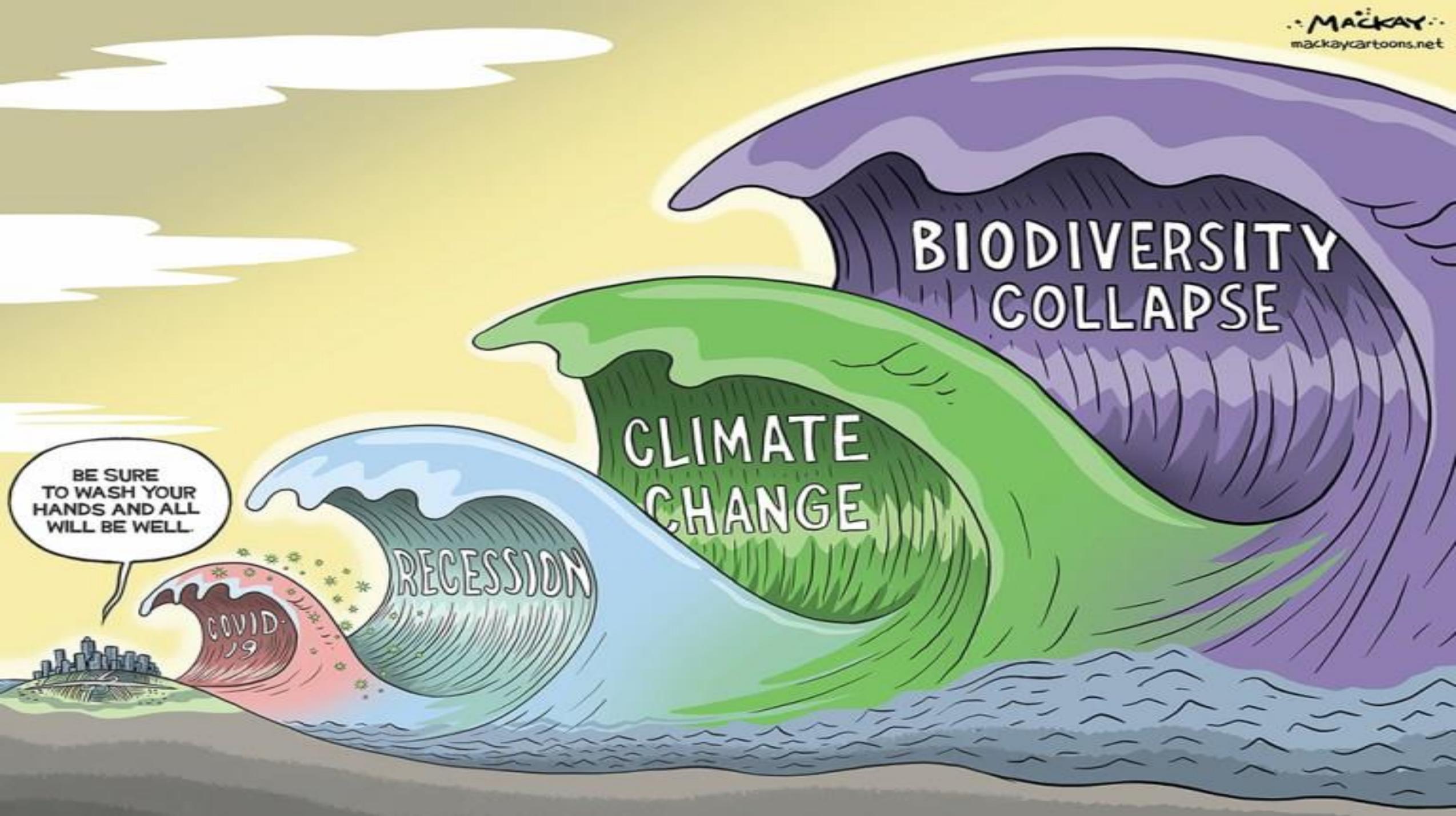


The imperative for action

The UK has lost almost half of its wildlife and plant species as a result of human and land development since the Industrial Revolution.

The country is ranked in the bottom 10% in the world and the worst among G7 nations





BE SURE
TO WASH YOUR
HANDS AND ALL
WILL BE WELL

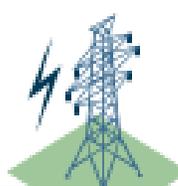
COVID-19

RECESSION

CLIMATE
CHANGE

BIODIVERSITY
COLLAPSE

The role of business

	 ELECTRICITY SUPPLY	 INDUSTRY	 TRANSPORTATION	 BUILDINGS
Businesses	<ul style="list-style-type: none"> › Support a 100 per cent renewable electricity future 	<ul style="list-style-type: none"> › Plan and implement zero-emissions transformation › Design long-lived products › Create circular supply chain 	<ul style="list-style-type: none"> › Work towards zero-emissions transportation › Reduce travel in operations 	<ul style="list-style-type: none"> › Construction and building material companies review business models › Achieve zero-carbon owned or rented building stock

United Nations Environment Programme (2022). Emissions Gap Report 2022: The Closing Window — Climate crisis calls for rapid transformation of societies — Executive Summary. Nairobi. <https://www.unep.org/emissions-gap-report-2022>

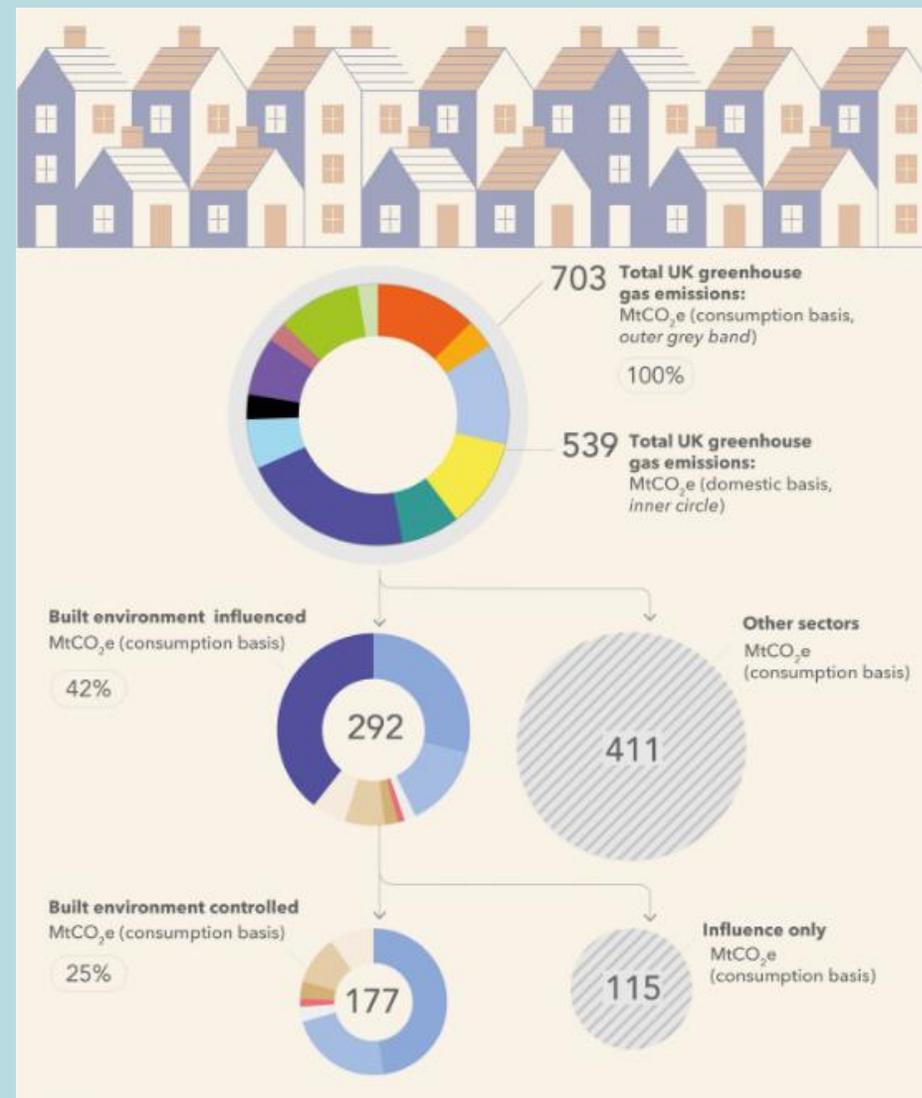
Emissions Gap Report 2022: The Closing Window

Table ES.3 Important actions to accelerate transformations in electricity supply, industry, transportation and buildings by different actors

	 ELECTRICITY SUPPLY	 INDUSTRY	 TRANSPORTATION	 BUILDINGS
National governments	<ul style="list-style-type: none"> › Remove fossil fuel subsidies in a socially acceptable manner › Remove barriers to expansion of renewables › Stop expansion of fossil fuel infrastructure › Plan for a just fossil fuel phase-out › Adapt market rules of electricity system for high shares of renewables 	<ul style="list-style-type: none"> › Support zero-carbon industrial processes › Promote circular material flow › Promote electrification › Support alternative carbon pricing mechanisms › Support research and innovation › Promote low-carbon products › Plan for a just transformation 	<ul style="list-style-type: none"> › Set mandates to switch to zero-emissions road vehicles by specific dates › Regulate and incentivize zero-carbon fuels for aviation › Adjust taxation/pricing schemes › Invest in zero-emissions transport infrastructure 	<ul style="list-style-type: none"> › Regulate towards zero-carbon building stock › Incentivize zero-carbon building stock › Facilitate zero-carbon building stock
International cooperation	<ul style="list-style-type: none"> › Cooperate on a just coal phase-out › Support initiatives on emissions-free electricity, power system flexibility and interconnection solutions 	<ul style="list-style-type: none"> › Cooperate on zero-carbon basic materials › Cooperate on hydrogen › Share best practice 	<ul style="list-style-type: none"> › Cooperate on financing and policy development › Coordinate on target setting and standards 	<ul style="list-style-type: none"> › Provide access and favourable conditions to finance › Support skills and knowledge growth
Subnational governments	<ul style="list-style-type: none"> › Set 100 per cent renewable targets › Plan for a just fossil fuel phase-out 	<ul style="list-style-type: none"> › Engage in regional planning and regulations › Cooperate with various stakeholders 	<ul style="list-style-type: none"> › Plan infrastructure and supporting policies that reduce travel demand › Adjust taxation/pricing schemes 	<ul style="list-style-type: none"> › Implement zero-emissions building stock plans › Integrate low-emissions requirements in urban planning › Add requirements that go beyond the national level
Businesses	<ul style="list-style-type: none"> › Support a 100 per cent renewable electricity future 	<ul style="list-style-type: none"> › Plan and implement zero-emissions transformation › Design long-lived products › Create circular supply chain 	<ul style="list-style-type: none"> › Work towards zero-emissions transportation › Reduce travel in operations 	<ul style="list-style-type: none"> › Construction and building material companies review business models › Achieve zero-carbon owned or rented building stock
Investors, private and development banks	<ul style="list-style-type: none"> › Engage with or divest from fossil fuel electricity utility companies › Do not invest in or insure new fossil fuel infrastructure 	<ul style="list-style-type: none"> › Engage with or divest from emissions-intensive industry › Invest in low-carbon energy and process technologies › Drive awareness of climate risks 	<ul style="list-style-type: none"> › Invest in zero-emissions transport infrastructure › Support zero-emissions vehicles, vessels and planes 	<ul style="list-style-type: none"> › Adjust strategy and investment criteria for zero-carbon building stock › Support building renovation
Citizens	<ul style="list-style-type: none"> › Purchase 100 per cent renewable electricity 	<ul style="list-style-type: none"> › Consume sustainably › Lobby 	<ul style="list-style-type: none"> › Adopt active mobility practices › Use public transportation › Use zero-emissions vehicles › Avoid long-haul flights 	<ul style="list-style-type: none"> › Retrofit for improved carbon footprint › Tenants challenge landlords › Adopt energy-saving behaviour

Understanding your industry

- + We provide advice in relation to the design, construction, operation and maintenance of buildings
- + The built environment influences and accounts for around 40% of global emissions.
- + Data can be found on the impact of most industries
- + Carbon emissions can be quantified
- + Impact on nature is less well defined
- + Regulation is tightening
- + TCFD and TNFD reporting is coming



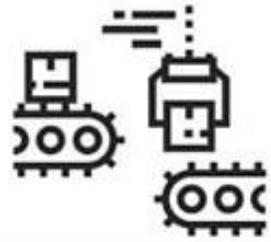


INDUSTRY 1.0

Mechanization,
steam power,
weaving loom



1784



INDUSTRY 2.0

Mass production,
assembly line,
electrical energy



1870

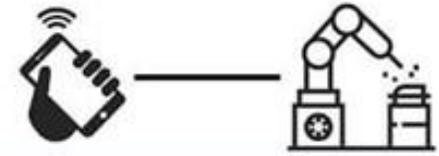


INDUSTRY 3.0

Automation,
computers and
electronics



1969



INDUSTRY 4.0

Cyber physical
systems, internet of
things (IoT),
networks



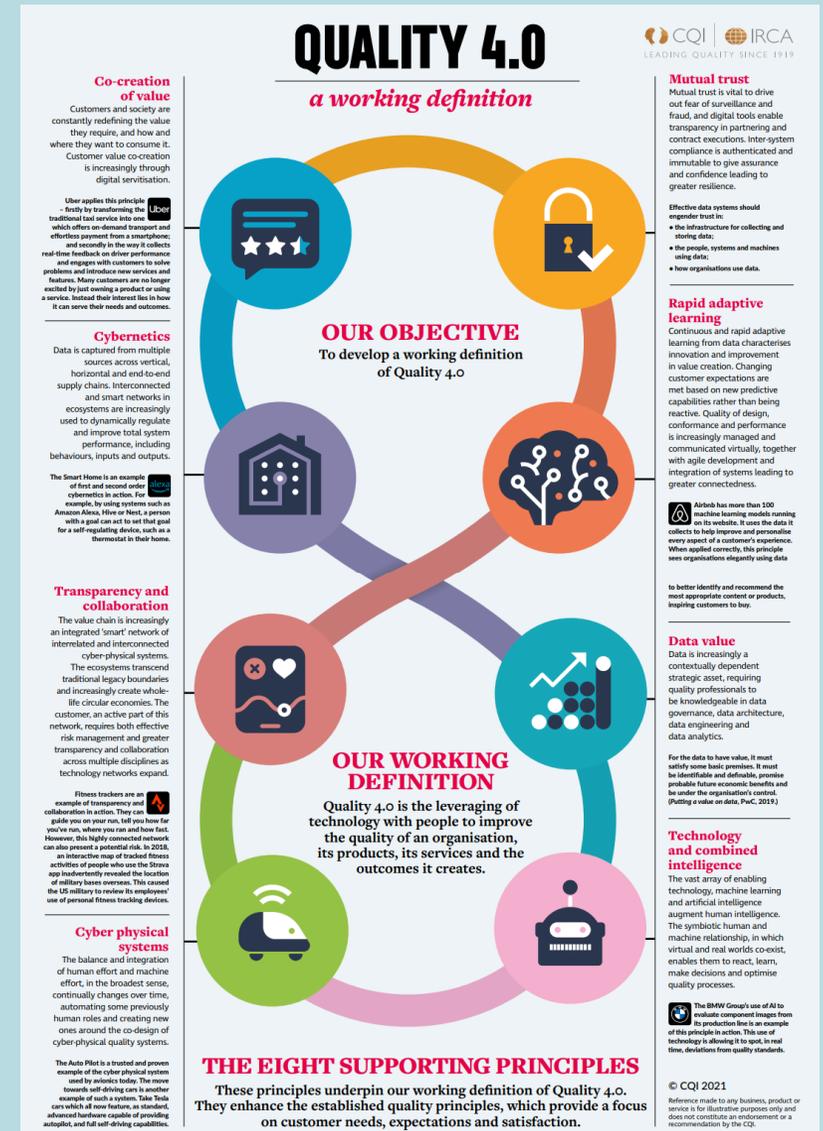
Today

The Quality system

Just as the Quality System thinking has evolved to contemplating 4.0 so has Sustainability thinking:-

- + Sustainability 1.0 – Minimising impact and doing less harm
- + Sustainability 2.0 – Heading to zero and neutrality
- + Sustainability 3.0 – Net positive putting more back into the environment and society than we take out
- + Sustainability 4.0 – Reconfiguring the living system to allow the social and environment aspect to evolve and thrive reaching their greatest potential.

We have a long way to come in a short time as an industry...





About us

Troup Bywaters + Anders, a high-performing building services consultancy, have been bringing buildings to life since 1958.

Over the last 60 years, the partnership has grown to over 240 strong with eight national offices, delivering projects in the UK and Europe across all sectors.

GROWING PEOPLE

INVESTORS IN PEOPLE
We invest in apprentices Platinum

Investors in People | Health & Wellbeing Award
Good Practice

INVESTORS IN PEOPLE
We invest in people Platinum

THE INVESTORS IN PEOPLE
AWARDS 2019
Winner

YOUNG ENGINEERS AWARDS 2019
Employer of the Year
WINNER: Medium company

INVESTORS IN PEOPLE | Champion

PRINCESS ROYAL TRAINING AWARD 2017

Women Living Wage
Employer

Consultancy & Engineering AWARDS 2017

2018 TALENT CN AWARDS
EXCELLENCE IN LEARNING & DEVELOPMENT

Apprenticeships National Awards 2020
Winner

HEALTHY WORKPLACE
CREDENTIAL #110
MAYOR OF LONDON

ACHIEVING QUALITY AND CONSISTENCY

Constructionline
Part of Capita plc

LUX AWARDS 2017
WINNER

iwfm
CORPORATE MEMBER

INTERNATIONAL QUALITY AWARDS 2018

CIBSE

BCO REGIONAL WINNER 2019
Award

SUSTAINABILITY AT HEART

UK GBC
Member

TERRA CARTA
For Nature, People & Planet

ADVANCING NET ZERO

A CLIMATE NEUTRAL COMPANY

UKAS Low Carbon Energy Assessor

BREEM

Camden Climate Change Alliance TEAM GREEN

WELL AP

Camden Climate Change Alliance CARBON CHAMPION

BREEM

UKAS Low Carbon Consultant

Our journey

Our purpose

+ to be a socially responsible and ethical partnership



Our journey

+ Place sustainability centrally



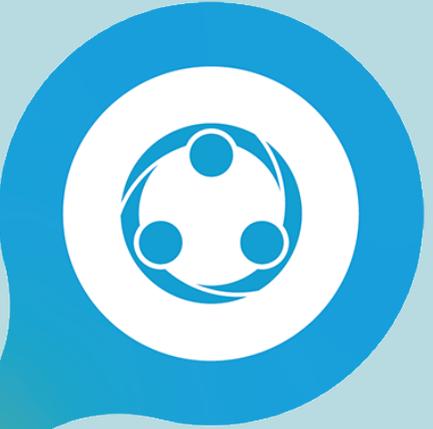
Achieving quality and consistency

Identifying and improving technical quality and consistency, bringing out best practice, streamlining processes and embedding our BIM capability

Positive social impact

Sustainability at heart

Playing our part in reversing climate change and resource consumption, protecting the environment for future generations to come



Growing people

Our people are supported to achieve their maximum potential through leadership, management, training and mentoring



Our journey

- + Place sustainability centrally
- + Growing people
 - + Award winning apprenticeship programme
 - + Learning & Development
 - + Mentoring scheme
 - + Members of TAC and chair of LAAN
 - + Majority of senior team joined as trainees or apprentices
 - + Working with Dept of Education in a 'Greening the UK Apprenticeships' programme

Growing people
They make the difference

Our exemplar apprenticeship programme

TROUP BYWATERS HANDERS

INVESTORS IN PEOPLE
We invest in people

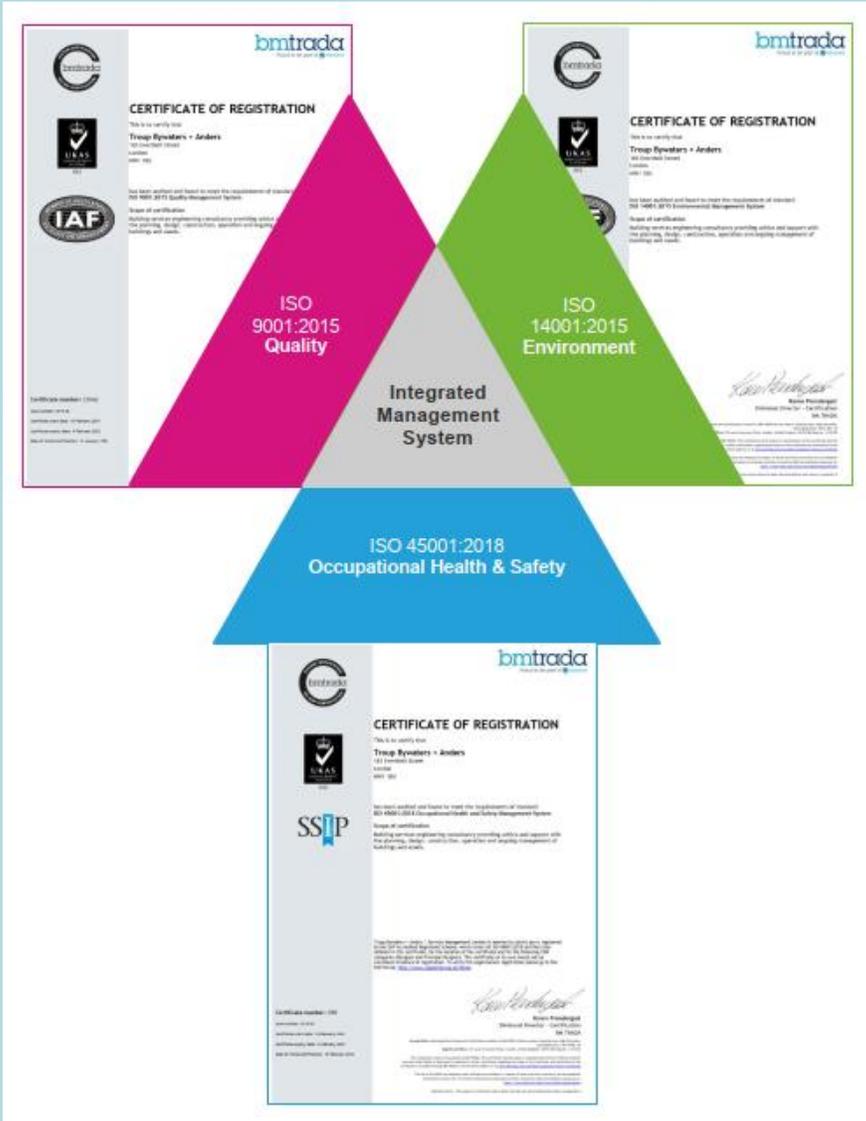
Oliver Newman
...degree apprentice

They make the difference

Growing people

Our journey

- + Place sustainability centrally
- + Growing people
- + Integrated management system



Our journey

- + Place sustainability centrally
- + Growing people
- + Integrated management system
- + Context of the Organisation

TROUP
BYWATERS
+ ANDERS



SWOT analysis
July 2021

<p>Strengths</p> <ul style="list-style-type: none"> • Our people, profile & standing against competitors • Profitable and stable • Partnership model • Diverse client base • UK wide reach • Development opportunities for our people • Sustainability at heart – carbon neutral and commitment to net zero • National consistency on training and process • Work and resource sharing across offices • Our whole life offering and National task team intelligence • Response to pandemic retaining staff, delivery & award winning 	<p>Weaknesses</p> <ul style="list-style-type: none"> • Potential sectors National this • Not all • Knowledge and be – we need these? • Depth
<p>Opportunities</p> <ul style="list-style-type: none"> • Maximising direct award frameworks • Smart grids and IoT • Climate change emergency awareness – reinforce pro-activeness • Decarbonisation agenda • Increased BIM usage – ensure standards are consistent across the business • Rebalancing of the UK economy towards our major regional cities • Response to pandemic as our clients' businesses' reshape across public & private sectors – new workstreams, changes in HVAC, potential focus on refurb/repurpose/efficiency • Improving /expanding whole life to take account of change in working practices 	<p>Threats</p> <ul style="list-style-type: none"> • Uncertain confidence • Pace of us and v • Government • Coronavirus all 4 UK • Competition presence the industry • COVID (particular Efficient lower gr • Impact of the pandemic on education and quality of future apprentices – also extends to all staff but in particular current graduates & apprentices

Bringing buildings to life
Integrated Management System
Context of the Organisation

(addressing the requirements of
ISO 9001:2015
ISO 14001:2015
ISO 45001:2018)

January 2022

Our journey

- + Place sustainability centrally
- + Growing people
- + Integrated management system
- + Context of the Organisation
- + Measure everything!

Day	Jan	Feb	March	April	May	June		
Monday				01/04/2019	25	03/06/2019	18	
Tuesday				02/04/2019	20	04/06/2019	15	
Wednesday	02/01/2019	10		03/04/2019	17	01/05/2019	18	
Thursday	03/01/2019	15		04/04/2019	14	02/05/2019	20	
Friday	04/01/2019	21	01/02/2019	10	01/03/2019	20	05/04/2019	17
Saturday								
Sunday								
Monday	07/01/2019	15	04/02/2019	15	04/03/2019	17	08/04/2019	19
Tuesday	08/01/2019	15	05/02/2019	20	05/03/2019	19	09/04/2019	17
Wednesday	09/01/2019	21	06/02/2019	15	06/03/2019	15	10/04/2019	22
Thursday	10/01/2019	9	07/02/2019	10	07/03/2019	21	11/04/2019	19
Friday	11/01/2019	12	08/02/2019	40	08/03/2019	17	12/04/2019	18
Saturday								
Sunday								
Monday	14/01/2019	22	11/02/2019	20	11/03/2019	20	15/04/2019	22
Tuesday	15/01/2019	12	12/02/2019	17	12/03/2019	17	16/04/2019	25
Wednesday	16/01/2019	10	13/02/2019	15	13/03/2019	21	17/04/2019	19
Thursday	17/01/2019	15	14/02/2019	18	14/03/2019	17	18/04/2019	17
Friday	18/01/2019	20	15/02/2019	22	15/03/2019	14		
Saturday								
Sunday								
Monday	21/01/2019	18	18/02/2019	33	18/03/2019	18		
Tuesday	22/01/2019	18	19/02/2019	30	19/03/2019	14	23/04/2019	20
Wednesday	23/01/2019	22	20/02/2019	22	20/03/2019	20	24/04/2019	17
Thursday	24/01/2019	10	21/02/2019	30	21/03/2019	15	25/04/2019	19
Friday	25/01/2019	20	22/02/2019	28	22/03/2019	22	26/04/2019	22
Saturday								
Sunday								
Monday	28/01/2019	15	25/02/2019	20	25/03/2019	22	29/04/2019	18
Tuesday	29/01/2019	18	26/02/2019	18	26/03/2019	30	30/04/2019	19
Wednesday	30/01/2019	20	27/02/2019	19	27/03/2019	18		
Thursday			28/02/2019	15	28/03/2019	15		
Friday					29/03/2019	18		
TOTAL		338	417	390	370			

Section	Emissions (tCO2e)			YoY %	
	2018/19	2019	2020	2020 vs 2018/19	2020 vs 2019
SCOPE 1					
Gas and burning oil consumption	64	69	26	-58.9%	-61.7%
Company cars	42	41	25	-40.1%	-38.8%
Total scope 1	106	110	51	3.5%	-53.2%
SCOPE 2					
Electricity consumption market-based	71	27	16	-78.0%	-39.6%

Troup Bywaters + Anders

Services order over past 12 months

- Mixed Recycling
- Zero to Landfill Waste
- Food Recycling
- Specialist Recycling
- Recycled Products

Results breakdown over 12 months (*monthly average)

- KG's recycled: 910 / 76*
- KG's waste to energy: 400 / 33*
- KG's anaerobic digestion: 0 / 0*
- Tonnes CO² saved: 0.00 / 0.00*
- Trees saved: 0 / 0*
- KWH generated: 220 / 18*

Your recycling rate: **69%**

first mile
easy recycling

0800 612 9894
thefirstmile.co.uk @firstmile

Our journey

- + Place sustainability centrally
- + Growing people
- + Integrated management system
- + Context of the Organisation
- + Measure everything!
- + Use UNSDG's – maximum impact



Our journey

- + Place sustainability centrally
- + Growing people
- + Integrated management system
- + Context of the Organisation
- + Measure everything!
- + Use UNSDG's – maximum impact
- + Engage with people, community, industry



Commercial Partner for Build Better Now

BUILD BETTER NOW



RACE TO ZERO

Our journey

- + Place sustainability centrally
- + Growing people
- + Integrated management system
- + Context of the Organisation
- + Measure everything!
- + Use UNSDG's – maximum impact
- + Engage with people, community, industry





Our journey

TROUP
BYWATERS
+ ANDERS

Sustainability Week 2022
12th – 16th September

BUILDING FOR
EVERYONE

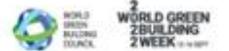


#BuildingforEveryone

Monday 12th September Theme: The planet	Tuesday 13th September Theme: Consumables	Wednesday 14th September Theme: People	Thursday 15th September Theme: Economics	Friday 16th September Theme: Communities
9:30am - Links Link to the challenge	9:30am - Links Link to the challenge	9:30am - Links Link to the challenge	9:30am - Links Link to the challenge	9:30am - Links Link to the challenge
9:30am - Challenge Get involved in at least 4 activities or presentations to be in with a chance to win a prize. Submit your Connect4 card which can be found on the top right page to sustainability@tba.com at the end of the week.	9:30am - Challenge Meal-free Tuesday - why not try to reduce your meat intake and try a vegetarian or vegan recipe today.	9:30am - Challenge Try to avoid printing out at home or in the office and have the switch to paperless for your bank statements etc.	9:30am - Activity Callirops Community Garden is a garden camp located 40 minutes from Kings Cross. It provides a range of activities, from gardening to sports from flowers to fun, and is a sustainable hub promoting the green way of thinking and an inclusive approach to life. If you are interested in volunteering at Callirops towards the end of 2022, or the beginning of 2023, please send your name through to sustainability@tba.com	9:30am - Challenge (online) A survey will be sent after Sustainability Week asking for feedback, and for data relating to our GHG emissions across the week so we can calculate our GHG footprint for the week.
9:30am - Activity (online - All offices) We are partnered with the Darwin Wildlife Conservancy Trust, an international charity headquartered at Jersey Zoo, working to save species from extinction. A small group of people will have the chance to go out to Jersey Zoo for either a volunteering day or tour towards the end of 2022/early 2023, paid for by TBA. If you are interested in signing up to this, please send your name through to sustainability@tba.com and names will be pulled out of a hat.	9:30am - Activity (online - All offices) High class "Start your day right with a green" speaking practice guided by Mandy, designed to wake up the body and mind for the day ahead! London - Haslett (please bring your own mat)	9:30am - Activity (online - All offices) Virtual wellbeing workshop: Mindfulness at work. "We run of pressure that the workplace can be just positive, supportive, and at times, pretty stressful. It requires high performance, productivity and focus, as well as getting along with colleagues, management, and clients - who at times might be tricky or demanding. And so this is where meditation and mindfulness come in." London - Haslett	9:30am - Activity (online - All offices) The Crafty Hen - Virtual Window Garden Workshop. Window garden workshop	9:30am - Presentation (online - Apprentices only) Presenter: Mark Bateman, Partner, LB Topic: Apprentice Challenge: IAC
10am - Sustainability journey Avoiding plastic	10am - Sustainability journey Sustainable transport	10am - Sustainability journey Fill your team? Pick your own map	10am - Sustainability journey Try forests	10am - Sustainability journey Air quality advice
11:30am - Presentation (online - All offices) Presenter: Peter Anderson, Managing Partner, TB+A Topic: Introduction and Future based solutions	10:30am - Presentation (online - All offices) Presenter: Eamonn Newby, Nutritionist, TB+A Topic: Speedy review on weekly food & how to not eat your desk or on the go!	10:30am - Presentation (online - All offices) Company: Optimal Spine - Spine & Posture Workshop	10:30am - Presentation (online - All offices) Presenter: Hannah Giddings, Resilience & Nature Advisor, LBC2C Topic: Climate risk, sustainability of carbon communities, and how we can help at the built environment	10:30am - Presentation (online - All offices) Presenter: Leahy Drake - Quercus Wildlife Conservation Trust Topic: Royal Goshaw Programme
12pm - SDG Votes (Send through to sustainability@tba.com) Please choose the UN SDG of your choice or one you feel most passionate about (just the number) from the icons below to determine the top 32 choices across the business. From these we will choose our offering portfolio to align with the top 32 SDG votes!	10:30am - Activity (in person - London) Company: Cultural Spine - Spine & Posture Workshop Checklist: Book your 10 min slot here	10:30am - Activity (in person - Manchester) Sustainable & ethical breakfast from the Open Kitchen		

Sustainability Week 2022 1 – 16th September

BUILDING FOR
EVERYONE



#BuildingforEveryone

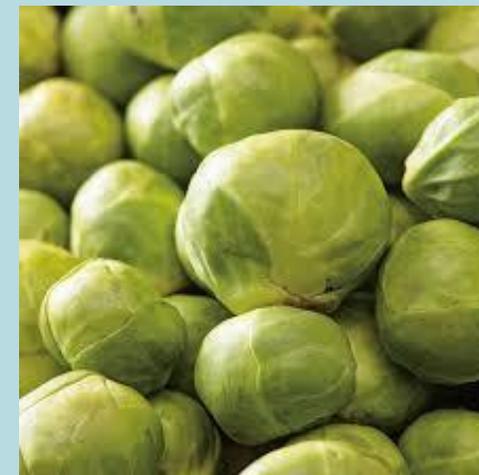
Tuesday 13th September Theme: Consumables	Wednesday 14th September Theme: People	Thursday 15th September Theme: Economics	Friday 16th September Theme: Communities
2pm - Pledges Daily Pledge - Pick a pledge (examples found here via The Edge) and promote this through LinkedIn or Twitter using #BuildingforEveryone or #TBA Sustainability Week	2pm - Pledges Daily Pledge - Pick a pledge (examples found here via The Edge) and promote this through LinkedIn or Twitter using #BuildingforEveryone or #TBA Sustainability Week	2pm - Pledges Daily Pledge - Pick a pledge (examples found here via The Edge) and promote this through LinkedIn or Twitter using #BuildingforEveryone or #TBA Sustainability Week	2pm - Pledges Daily Pledge - Pick a pledge (examples found here via The Edge) and promote this through LinkedIn or Twitter using #BuildingforEveryone or #TBA Sustainability Week
2:30pm - Presentation (online - All offices) Presenter: Debbie Bourne, Think & Do Light Fantastic Topic: Light Fantastic Scheme Conclude	2:30pm - Presentation (online - All offices) Presenter: James Corstall, Partner, UK Topic: TB+A Whole Life	2:30pm - Presentation (online - All offices) Presenter: Derek Hutchings, Partner, Glasgow Topic: Ecor Gabbler	3:30pm - Activity (online - All offices) Raffle, Seaflower winners. Ask the kids, poster competition winners, Connect 4 winner, Carbon Calculator winner
4pm - Quotes Via The Edge	4pm - Quotes Via The Edge	4pm - Quotes Via The Edge	4pm - Quotes Via The Edge
4pm - Food bank donations It's a challenging time for everyone as the we recover from the pandemic and the cost of living continues to soar. If you can, we will be setting up collection points in each office for supplies to donate to local food banks close to each office.	4:30pm - Activity Volunteer with the Seafood Bank	4pm - Challenge (online - All offices) Pick the kids poster competition ends today - submit your entries to sustainability@tba.com . Winners will be announced tomorrow!	4pm - Activity (in person - Belfast) Local food/drink taster session
4pm - Activity (in person - London) Fatty's Organic Gin / Dulwich Spirits Drinks & Food tasting	5pm - Activity (online - All offices) Fragrant Cooking Class - Sri Lankan cuisine	4:30pm - Activity (online - All offices) Sustainability Quiz	5pm - Activity (online - All offices) Disconnect & switch-off your work and home items
4pm - Activity (online - All offices) Global Generation is focused on youth education and nature engagement, with several community gardens across the Capital. If you are interested in volunteering at one of these towards the end of 2022, or the beginning of 2023, please send your name through to sustainability@tba.com	All day - Awareness - Future Leaders meeting Topic: Sustainability	5:30pm - Activity (in person - Manchester) Have night with locally sourced food from a sustainably forward restaurant, Sandolust	
All day - Seedbombs Throw and Grow your own wildflower meadow			
All week - Raffle This year our chosen charity is National Energy Action (NEA), the national fuel poverty charity campaigning to ensure that everyone can afford to live in a warm and safe home. This is something shared by millions because of poor housing, low incomes, and high fuel bills. Help us to support the amazing charity by taking part in our Sustainability Week Raffle and be in with a chance of winning some great prizes! Visit nationalenergyaction.org.uk for more information and donate via our fundraising page .			

#TBASustainabilityWeek
#WGBW22
#SustainabilityatHeart



Our journey

- + Place sustainability centrally
- + Growing people
- + Integrated management system
- + Context of the Organisation
- + Measure everything!
- + Use UNSDG's – maximum impact
- + Engage with people, community, industry
- + Influence behaviour



Our journey

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- + Engage with people, community, industry
- + Influence behaviour
- + Drive efficiency, set policies



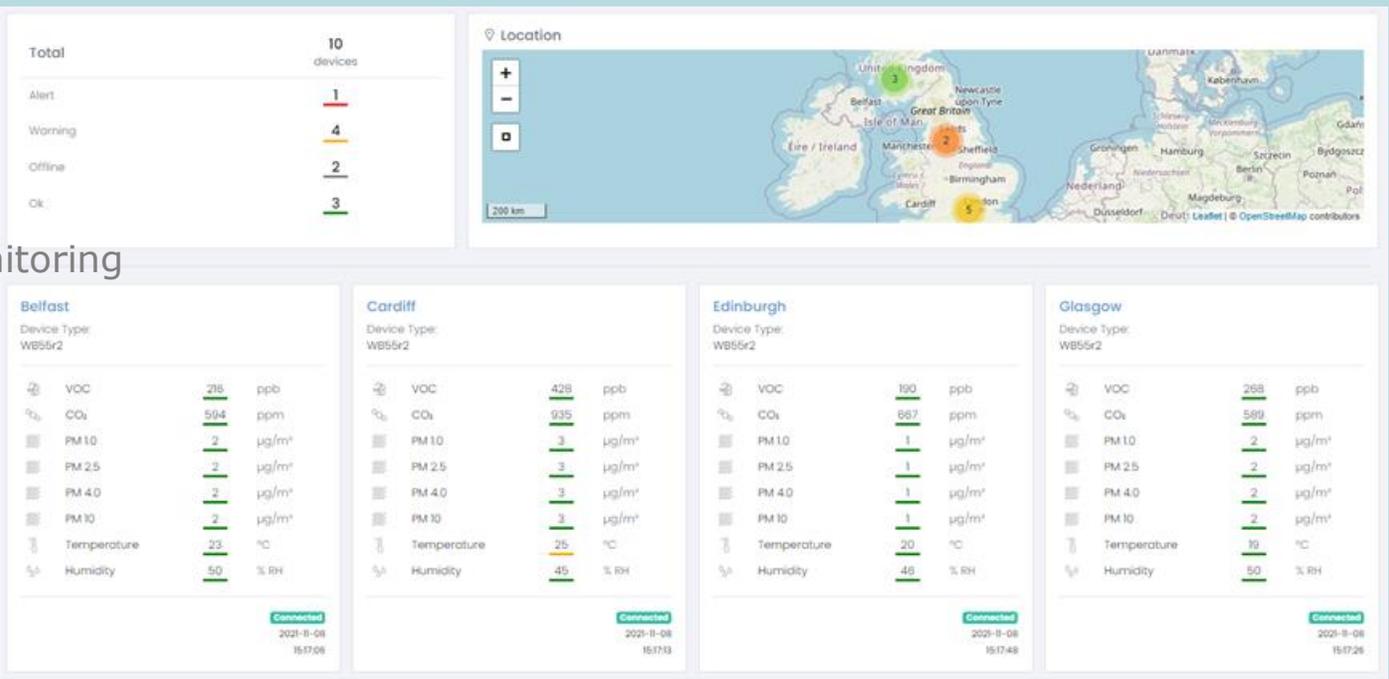
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- + Engage with people, community, industry
- + Influence behaviour
- + Drive efficiency, set policies
- + Refresh offices and source renewable energy



Our journey

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- + Drive efficiency, set policies
- + Refresh offices and source renewable energy
- + Meters, electronic controls and air quality monitoring



Our journey

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- + Refresh offices and source renewable energy
- + Meters, electronic controls and air quality monitoring
- + Embed offering and products



Our journey

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- + Growing people
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- + Measure everything!
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- + Engage with people, community, industry
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- + Drive efficiency, set policies
- + Refresh offices and source renewable energy
- + Meters, electronic controls and air quality monitoring
- + Embed offering and products
- + Establish working teams

Our journey

- + Place sustainability centrally
- + Growing people
- + Integrated management system
- + Context of the Organisation
- + Measure everything!
- + Use UNSDG's – maximum impact
- + Engage with people, community, industry
- + Influence behaviour
- + Drive efficiency, set policies
- + Refresh offices and source renewable energy
- + Meters, electronic controls and air quality monitoring
- + Embed offering and products
- + Establish working teams
- + Develop 5 year sustainability strategy & action plan



Our journey



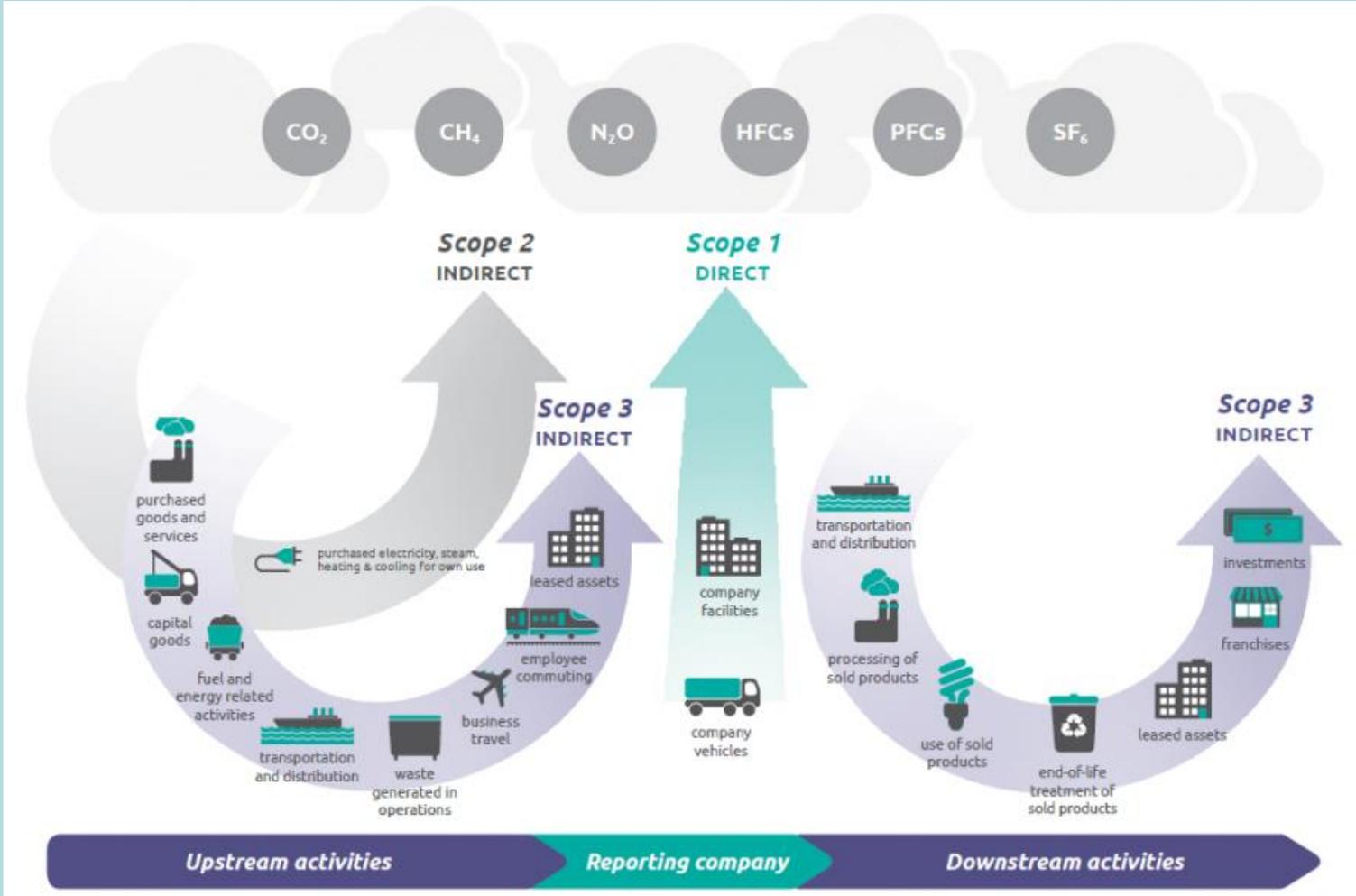
Our journey

+ Independent audit



Our journey

- + Independent audit
- + Establish carbon reduction trajectory



Our journey



WORLD
GREEN
BUILDING
COUNCIL



SCIENCE
BASED
TARGETS

Scope 1
Burning fossil fuels

Scope 2
Electricity consumption

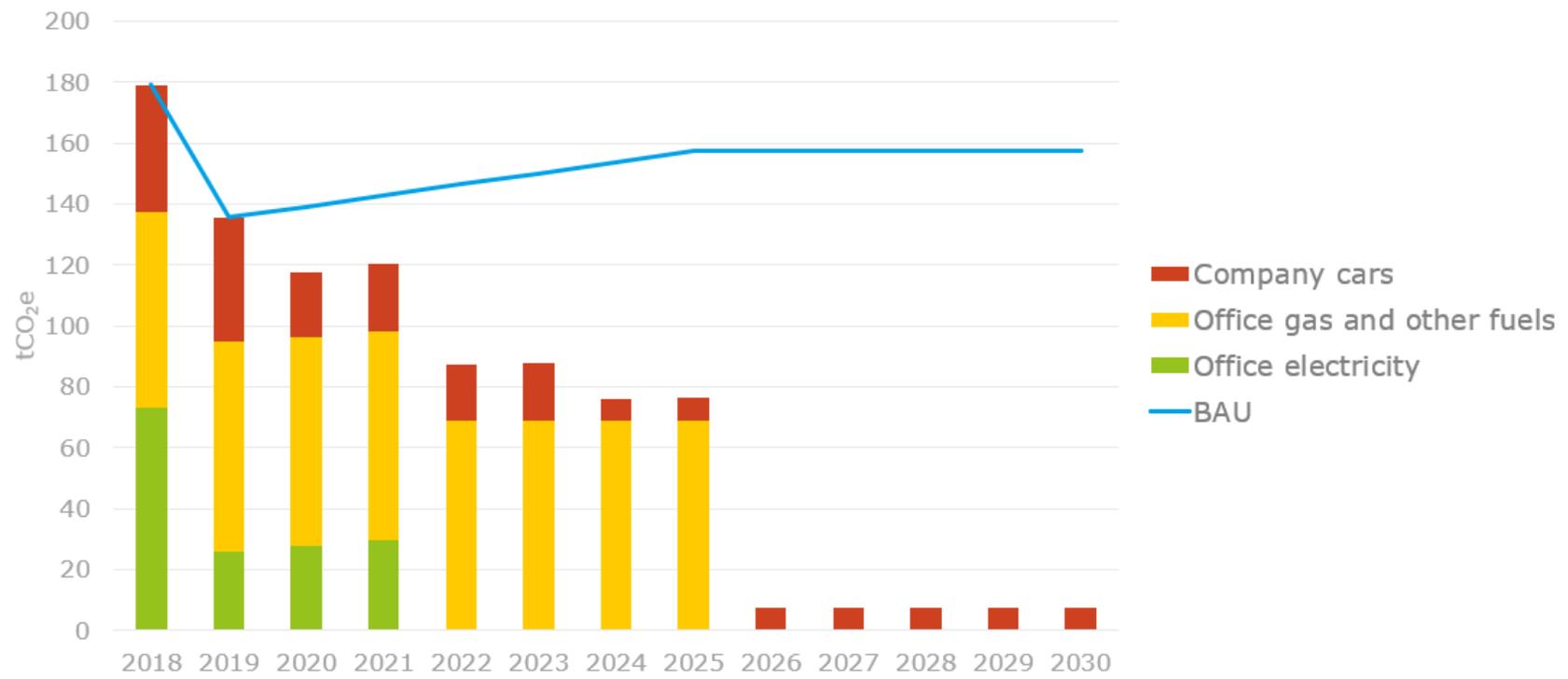
Scope 3
Emissions from up and
downstream operations

Our journey



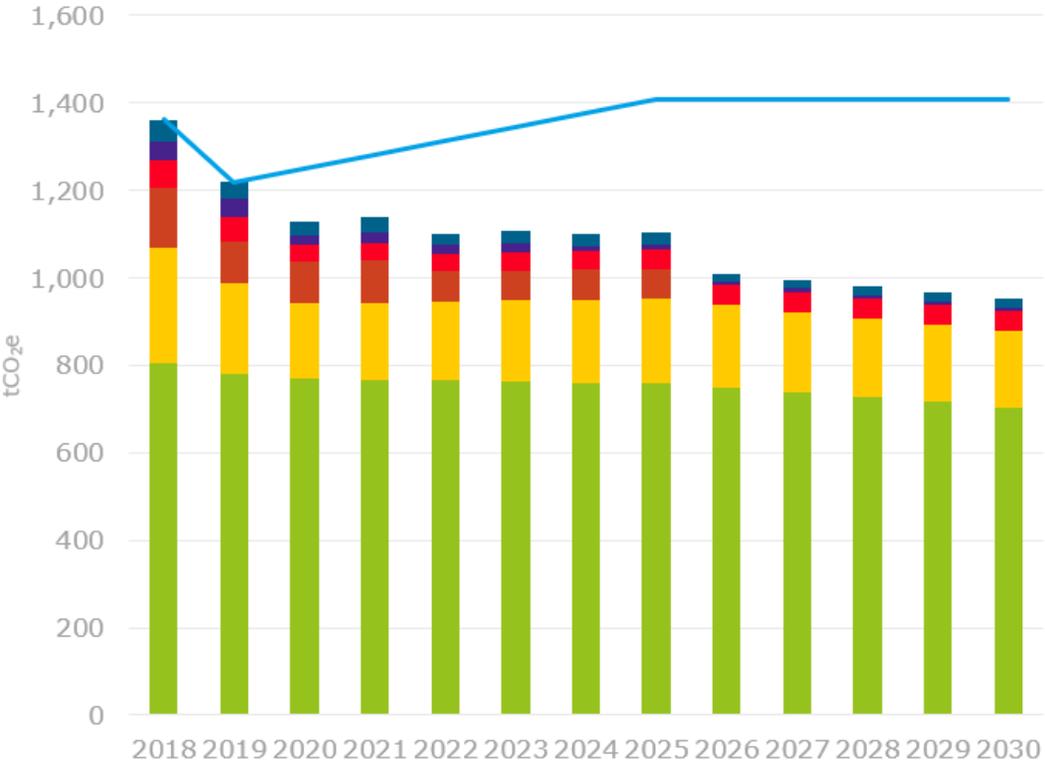
Carbon reduction trajectory (draft)

	2025	2030
Scope 1 & 2 reduction	-57%	-96%



Our journey

Carbon reduction trajectory (draft)



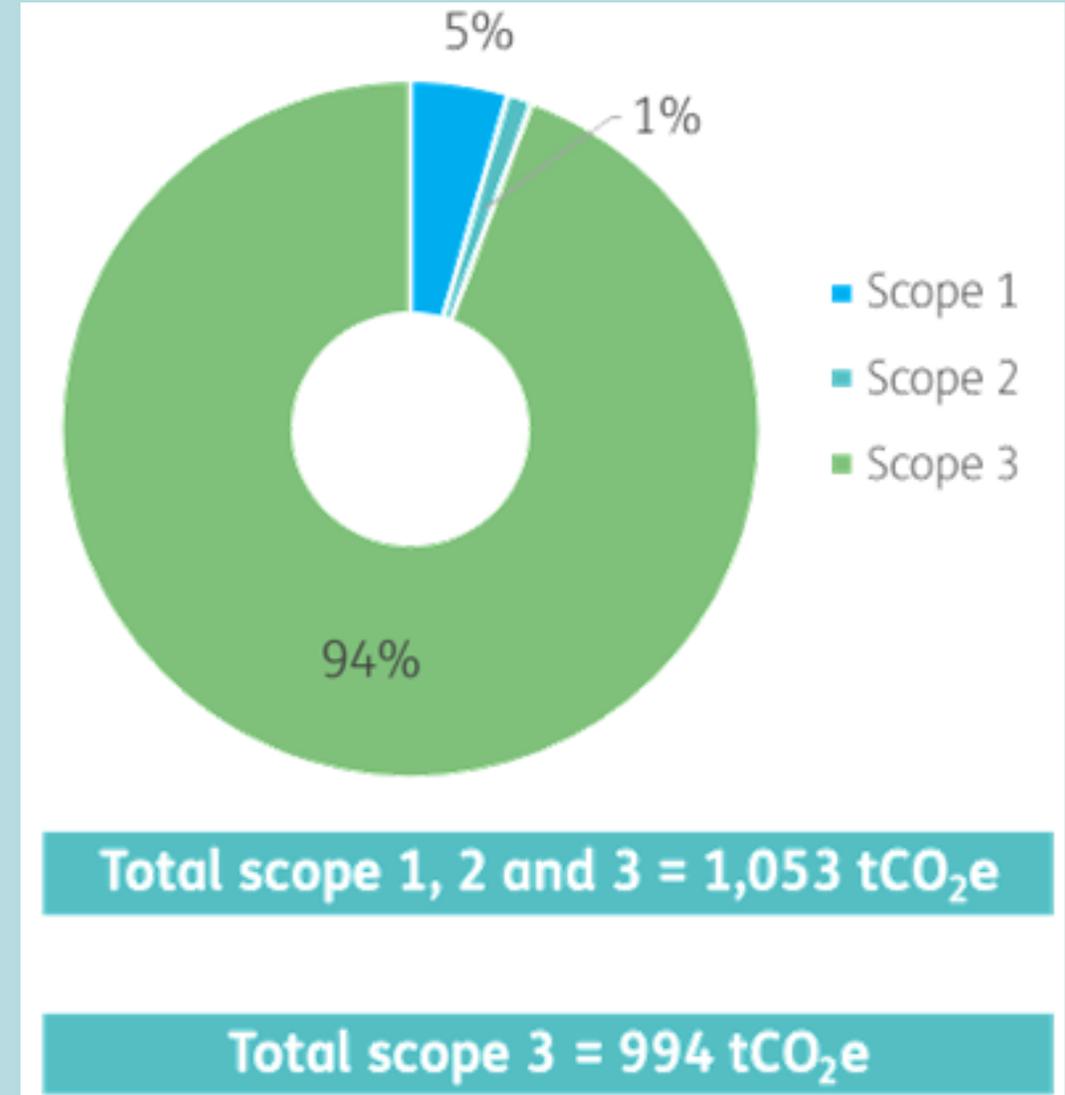
	2025	2030
Total footprint reduction	-27%	-38%

- Other
- Company cars
- Employee commuting
- Office energy
- Business travel
- Procurement and capex
- BAU

Scope 3

Our journey

- + Independent audit
- + Establish carbon reduction trajectory
- + Work with supply chain



Our journey

- + Independent audit
- + Establish carbon reduction trajectory
- + Work with supply chain
- + Commit





**ADVANCING
NET ZERO**

Business | City | States & Regions

TROUP BYWATERS + ANDERS
Engineering Consultancy

Tenant

TB+A is a socially responsible and ethical partnership providing whole-life advice for design, construction, operation and management services and roadmaps for clients to decarbonise the built environment. 'Sustainability at Heart', one of their core strategy pillars, is dedicated to reversing climate change and resource consumption, thereby protecting the environment.



WORLD
GREEN
BUILDING
COUNCIL



7 assets

1,821 m² total floor area

158 tCO₂e portfolio carbon emissions

237 employees

- 1 Commit**
Achieve carbon neutrality by 2020 and commit to only occupying net zero carbon operational assets by 2025.
- 2 Disclose**
Measure and disclose energy consumption and carbon emissions (Scope 1, 2 and 3) via publicly available annual reporting.
- 3 Act**
Engage with landlords, tenants and supply chain to incorporate energy efficiency measures, and 100% renewable energy solutions where possible. Continue to implement a carbon-reduction strategy aligned with the Commitment and SBTs.
- 4 Verify**
Verify annual energy consumption and carbon emissions data via independent third party verification.
- 5 Advocate**
Continue to advocate for the construction industry to transform by creating new pathways for low to zero carbon technologies and approach that present a new lever for the property industry to achieve net zero emissions. Engage with suppliers to reduce upstream carbon intensity and collaborate with customers as part of a whole building approach to design, operation and management.

**TROUP
BYWATERS
+ ANDERS**

a member of UK Green Building Council

**CLIMATE GROUP
EP100**

Our journey

- + Independent audit
- + Establish carbon reduction trajectory
- + Work with supply chain
- + Commit

Sponsorship & Volunteering

Sponsorship

- + Sponsored Uni College School – Plant hedgerow
- + Light Fantastic – energy saving measures/lightbulbs

Volunteering

- + Global Generation: Paper Gardens, Canada Water
- + Calthorpe community garden project, Kings Cross
- + Jersey Zoo
- + Pro-bono work

THINK&DO

COMMUNITY SPACE FOR CLIMATE & SOCIAL ACTION



Our journey

- + Independent audit
- + Establish carbon reduction trajectory
- + Work with supply chain
- + Commit
- + External measurement



Our journey

- + Independent audit
- + Establish carbon reduction trajectory
- + Work with supply chain
- + Commit
- + External measurement
- + Launch ESG Report



Our journey

- + Independent audit
- + Establish carbon reduction trajectory
- + Work with supply chain
- + Commit
- + External measurement
- + Launch ESG Report
- + Share knowledge

TROUP
BYWATERS
+ ANDERS

A carbon neutral Partnership
We are a carbon neutral partnership and our operations are aligned with the UN SDGs. Sustainability is at the heart of our business as we make stronger commitments and take action to be at the forefront of climate leadership. Our leaders, consultants and engineers are all experienced in delivering tailored socially and environmentally beneficial possibilities drawing on sector specific technical knowledge. We are leaders in sustainability and with our whole-life approach are ideally placed to support you on your journey to becoming a Net Zero Carbon organisation.

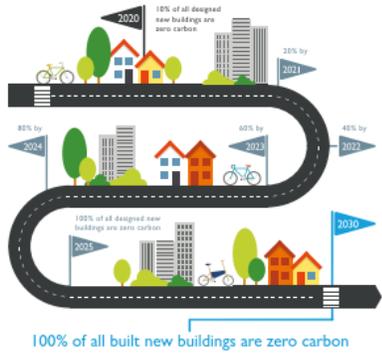
Leadership in responding to the climate crisis
We are committed to making a positive social impact as part of the UN Global Compact UK-SDG Advocacy Working Group, members of the UK Green Building Council and board members of the Camden Climate Change Alliance accredited with 'Team Green' and 'Carbon Champion'. By signing up to both the UK BSE Declare Climate & Biodiversity Emergency and RetroFirst, we are setting new priorities and developing better ways of working, improving the sharing of information and best practice. All with the aim of moving towards zero carbon construction in support of the government's 2050 net zero target.

LETI collaboration route to net zero
As co-authors of the Climate Emergency Design Guide produced by the London Energy Transformation Initiative (LETI), we contributed to setting guidelines for the industry on whole-life net zero carbon, and bringing this knowledge, experience and thinking to our clients' journey to net zero.

LONDON
ENERGY
TRANSFORMATION
INITIATIVE

Achieving net zero
Our approach to helping you achieve net zero carbon is about understanding where you are now and establishing a roadmap that responds to all facets of your business. We will allocate a sustainability champion who will be our lead in engaging with you and be committed to delivering your journey.

- Our consultation process will cover the following key areas:
- + Benchmarking
 - + Behaviours
 - + Efficiencies
 - + Renewal plans
 - + Innovation exploration



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BYWATERS
+ ANDERS

Developing your roadmap
Whether you are only just thinking of designing your new property or whether it is an existing building, of any age, we can assist you in defining the pathway towards net zero and beyond to a regenerative positive contribution. The steps to zero carbon will be aligned with the UKGBC Net Zero Carbon Buildings Framework as illustrated below, to define your unique roadmap.

Establish Net Zero Carbon Scope

- + Strategic planning (new build and existing buildings)
- + Material assessments
- + NZC roadmap
- + Energy Performance Certificates
- + Carbon footprint assessments
- + Display Energy Certificates
- + Reduction strategies
- + Minimum Energy Efficiency Standard (MEEES)
- + Environmental reporting reviews
- + Performance based outcomes
- + Compliance reviews

Reduce Construction Impacts

- + Embodied carbon assessments
- + Modern Methods of Construction (MMC)
- + Sustainable technology solutions
- + Soft Landings management
- + Passivhaus design
- + Part L compliance
- + Fabric first approach
- + Whole-life cycle analysis

Reduce Operational Energy Use

- + Building Performance Assessments
- + Design vs operational performance studies
- + Energy assessments and management strategies
- + Building optimisation studies and solutions
- + SMART Building Analytics Strategies
- + ESOS reporting
- + Low carbon "deep" retrofit
- + Feasibility studies
- + Benchmarking

Increase Renewable Energy Supply

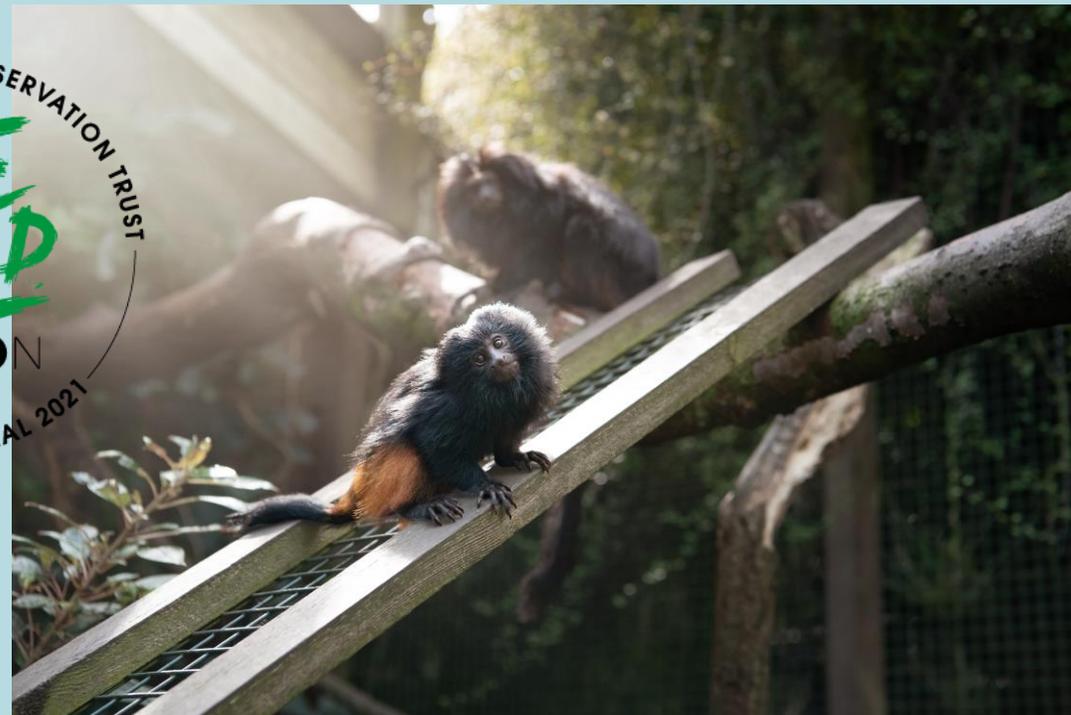
- + Utility Provider assessments
- + Plant replacement strategies
- + Renewable technology solutions
- + CIBSE Low Carbon Consultants
- + Feasibility studies
- + Return on Investment studies

Offset Remaining Carbon

- + Strategic offsetting advice
- + Measurement and verification
- + Climate change risk reporting
- + Compliance reporting
- + Post Occupancy Evaluations
- + Continuous commissioning
- + Calibrated energy models
- + Training

Our journey

- + Independent audit
- + Establish carbon reduction trajectory
- + Work with supply chain
- + Commit
- + External measurement
- + Launch ESG Report
- + Share knowledge
- + Positive impact investment
 - + Scope 1,2 and 3
 - + At 2018 levels
 - + Thereby investing 20x more than commitments

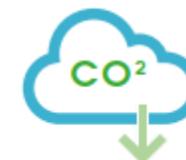


Rachel Hughes – Partnership Officer at Durrell Wildlife Conservation Trust

THE INVESTMENT OF £367,969 IN REWILD CARBON TO DATE WILL...

RESTORE 40 HECTARES
OF NEW ATLANTIC
FOREST, EQUIVALENT
TO 109,281 TREES

WILL SEQUESTER
14,970 TONNES CO₂e
OVER THE LIFETIME
OF THE TREES



OUR SUSTAINABILITY JOURNEY

Our purpose is to be a socially responsible and ethical Partnership that is the best at everything we do.

Over the past decade, we have continued to make stronger commitments and take action to be at the forefront of climate leadership through our work with the UK-GBC, CCCA and World Green Building Council.

In 2009, TB+A achieved ISO 14001, and with the aid of sustainability partners Bioregional, has since gone on to attain further accreditations, sign pledges and win awards for commitments to sustainability.

2016

Winner: Investors in People Excellence in CSR

3 pillars introduced:
+ Growing people
+ Sustainability at heart
+ Achieving quality and consistency

2017

Awarded CCCA Going Green and Team Green Marks of Achievement

Camden Business Sustainability Awards – Winner Best Employee Engagement Initiative

Princess Royal Training Award



2012

Creating an energy policy and monitoring

Invested and introduced a formal apprenticeship scheme, 3 apprentices joined in London. TB+A acted as lead employer

2009

Achieving ISO 14001

2010

Set up the Eco-committee to become the Sustainability Working Team in 2019

2011

Joined CCCA (Camden Climate Change Alliance) by signing Climate Commitment



2013

Joined UK Green Building Council

2015

Highly commended for 'Excellence in Sustainability' at the Camden Business Awards



2021

Carbon reduction targets approved by SBTi.

Supporters of HRH The Prince of Wales's Sustainable Markets Initiative, the 'Terra Carta'

Founding signatory of the WGBC Whole Life Carbon pathway

We Invest in Apprentices – IIP Platinum

Celebrating TB+A's 5 year living wage anniversary

Achieved EcoVadis Gold status

Commercial Partner to UKGBC Build Better Now COP26 campaign and virtual pavilion

Invested in Rewilding Carbon with the Durrell Wildlife Conservation Trust to achieve Carbon Positive actions

Winners of IIP Best Pivot Scheme during the pandemic



2020

'SME Employer of the Year' at the National Apprenticeship Awards

TB+A becomes a Carbon Neutral Partnership

Joined the WGBC Net Zero Carbon Buildings Commitment

CCCA Carbon Champion 2020 and 2021

National Apprenticeship Awards winner

INVESTORS IN PEOPLE® We invest in apprentices Platinum



COP26 BUILT ENVIRONMENT VIRTUAL PAVILION

THE INVESTORS IN PEOPLE AWARDS 2021 Winner



2018

Development of TB+A's Sustainability Strategy & Action Plan

Finalists in the 'Quality Organisation of the Year' category at the CQI International Quality Awards

Healthy Workplace Charter

2019

Transitioned from OHSAS 18001 to ISO 45001:2018

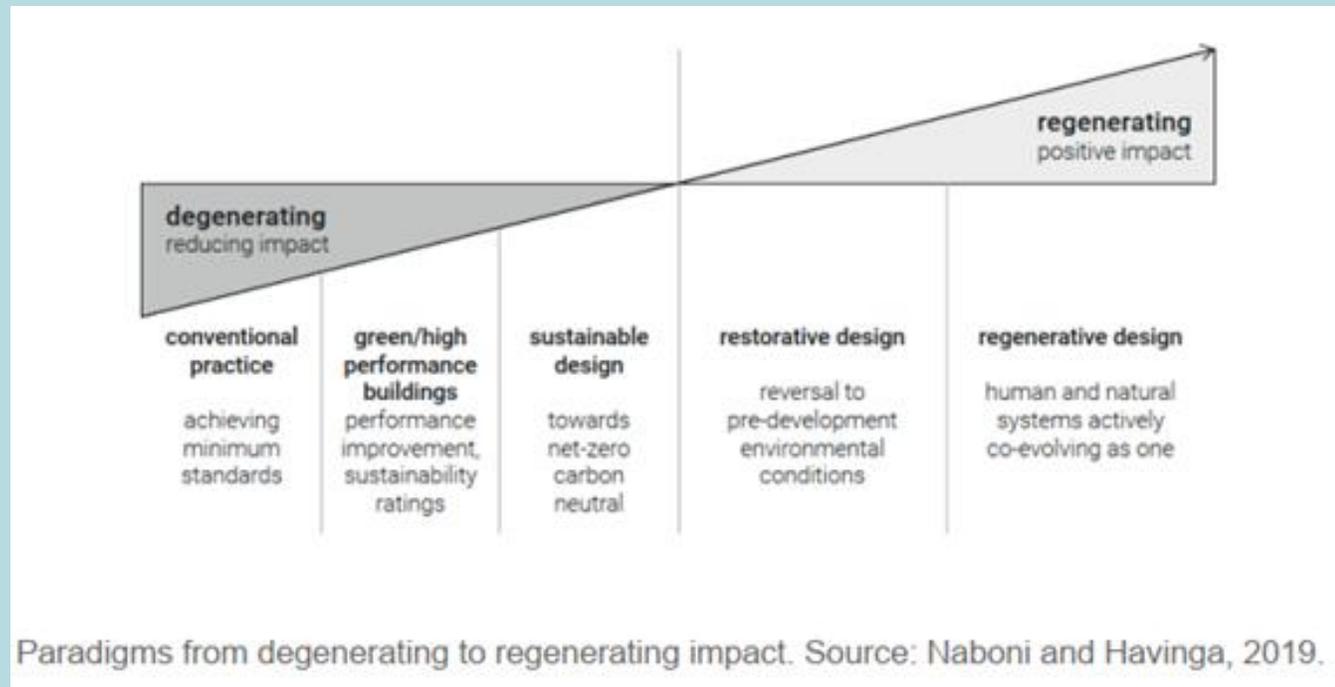
Achieved Investors in People Platinum



Restorative thinking

Nature based solutions

- + We need to learn to live within boundaries and natural ecosystems
- + We are part of nature and all of our actions are interlinked with our destiny
- + TB+A recognise our impact on the world and the need to drive towards a regenerative position



Restorative thinking

Nature based solutions

- + UK Green Building Council | Climate resilience and embracing nature: An ambition for the built environment

"Actions to protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human wellbeing and biodiversity benefits." – IUCN, 201911

Plan to restore biodiversity



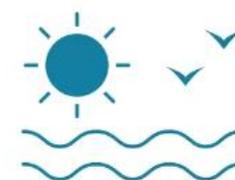
Land
Protect wild areas



Farming
Make better for nature



Cities
Make space for nature



Oceans
Protect marine habitats



Water
Safeguard lakes and rivers for wildlife



Climate
Reduce impacts of climate change



Food
Plant based diet, reduce waste



One health
Manage whole environments to aid health

Restorative thinking

Nature-based solutions

- + UK Green Building Council | Climate resilience and embracing nature: An ambition for the built environment

'By 2030, all buildings and infrastructure will, throughout their lifetime, be climate resilient and maximise environmental net gains, through the prioritisation of nature-based solutions.'

A DIFFERENT FUTURE

Imagine a world where...

- Urban environments are cooled through networks of tree canopies, rather than air conditioning units
- Rainwater is managed, stored and filtered through green roofs, vegetated ditches, ponds and wetlands
- Flood defences are built using trees and wetlands rather than engineered structures

Such nature-based solutions can provide benefits to ecosystems whilst improving health and wellbeing, sequestering carbon and providing social value. They can be designed in ways which address the need for our built environments to both adapt to climate change and enhance nature for the benefit of people, planet and business.

Restorative thinking

Nature-based solutions

- + Consider the Oak tree...
- + Resilient, strong, durable....
- + Sequesters carbon...



Restorative thinking

Nature-based solutions

A mature Oak provides a habitat and food to 2300 species including:-

- + 31 mammals
- + 38 birds
- + 284 insects
- + 108 fungi
- + 716 lichens and mosses

It sustains, recycles, regenerates and lives within it's means as part of the ecosystem.



TROUP
BYWATERS
+ ANDERS

High-performing partnership
Higher performing buildings

Thank you for your time