

NET ZERO STARTER GUIDE

Your guide to understanding net zero and what
AECOM is doing to respond to the climate emergency

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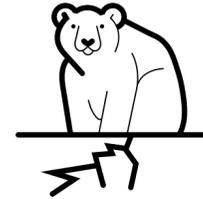
ACHIEVING A NET ZERO FUTURE – HOW IS AECOM RESPONDING?

WHY IS ACHIEVING NET ZERO IMPORTANT?

The UK was the first country to declare a climate emergency, setting a 2050 net zero target. The Committee on Climate Change (UK) shows current targets from countries globally would lead to warming of 3°C by 2100.

We need to act now.

THIS IS THE DECADE OF CLIMATE ACTION



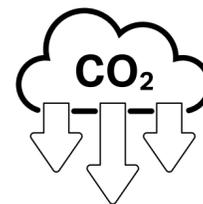
LIMIT TO 1.5°C

2018 IPCC report shows we need to **limit global warming to 1.5 degrees centigrade** to avoid worst effects of climate change, requiring unprecedented changes globally.



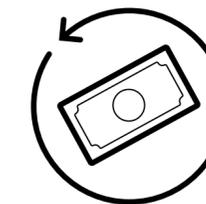
SCIENCE BASED TARGETS

Over a 1,000 companies have committed to setting Paris-aligned **Science Based Targets** with a market cap of **\$15.4 trillion**.



7% EVERY YEAR UNTIL 2030

Energy-related CO₂ emissions set to drop 7 per cent in 2020 due to coronavirus, but we would **need to achieve this every year until 2030** or miss the opportunity to get on track towards the goal of the Paris Agreement.



50% OF GLOBAL GDP

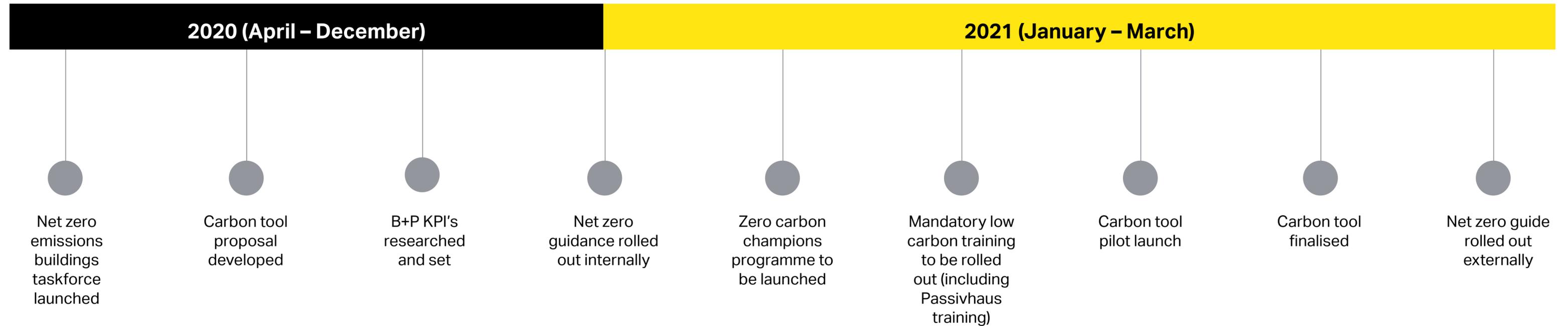
Almost **half of global GDP** is now under actual or intended net zero emission targets.

AECOM'S B+P NET ZERO EMISSIONS BUILDINGS TASKFORCE

NET ZERO EMISSIONS BUILDINGS TASKFORCE – PROGRESS AND BEYOND



The net zero emissions buildings taskforce was established to demonstrate our commitment to addressing the climate emergency and develop realistic, robust actions in response.



AECOM'S GLOBAL COMMITMENTS

OUR GLOBAL COMMITMENTS

What are our science based targets and how are AECOM meeting them?



We have committed to two global targets with a 2025 deadline (2018 baseline year)

20% REDUCTION

in operational emissions (fleet vehicles and office energy)

This target is approximately the equivalent of 1,100 cars off the road over the same period of time.

Making sure our vehicles are running properly, looking for greener vehicles, and ensuring and our drivers are also behaving in eco-friendly ways.

Right-sizing our real estate portfolio, trying to improve the equipment we have for existing and new offices, transitioning to renewables, and encouraging sustainable behaviours with our green teams.

10% REDUCTION

in our supply chain emissions

Working closely with our most significant suppliers to identify emissions hotspots.

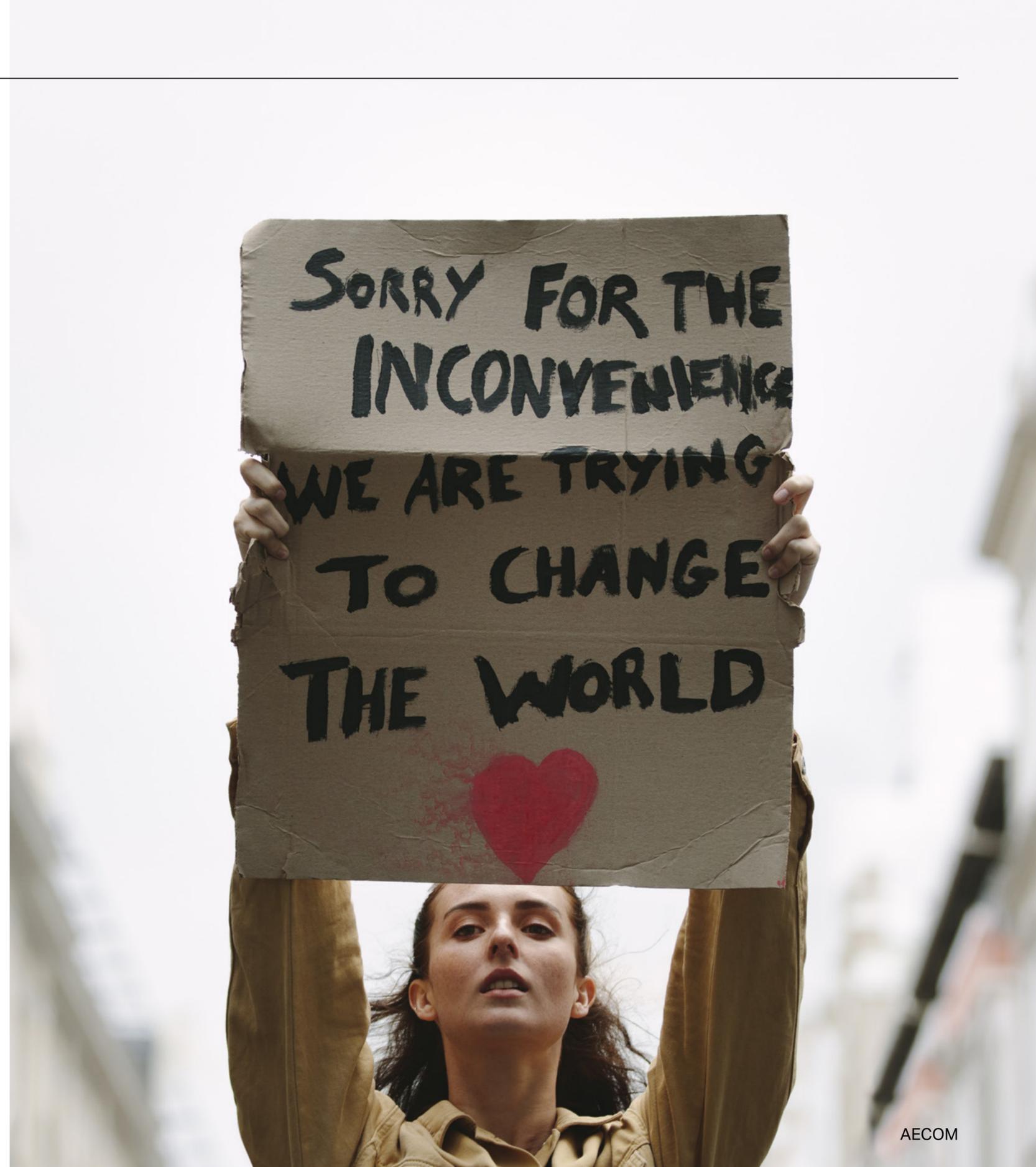
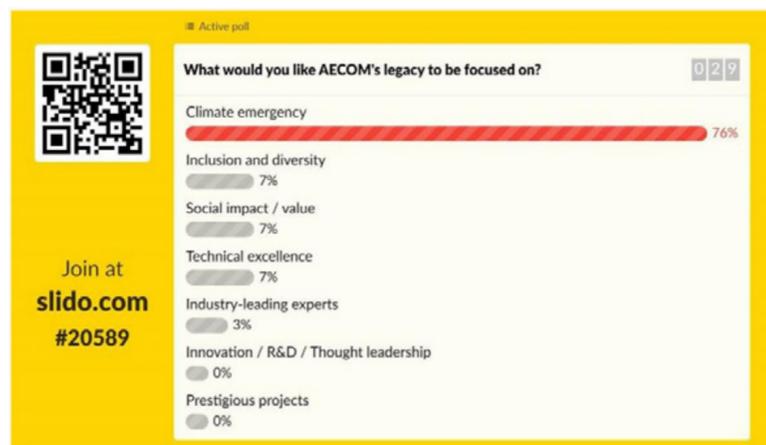
Encouraging these suppliers to set ambitious emissions targets.

Considering changes to our suppliers where necessary.

OUR PEOPLE + CULTURAL DEVELOPMENT

In a poll of 2020 UK+I graduates, 76 per cent said AECOM's legacy should be focused on tackling the climate emergency. This has been reflected in other parts of the business with growing interest in green teams, greening our homes and working on sustainable projects.

Tackling the climate emergency aligns with our brand messaging: building a better world and leaving legacies for generations to come as well as our 'safeguard' value. It is a theme that applies across all end markets and regions.



AECOM'S UK+I COMMITMENTS

AECOM UK+I NET ZERO COMMITMENT WITH THE WORLD GREEN BUILDING COUNCIL

World Green Building Council's commitment challenges organisations to reach net zero carbon in operation for all assets under their direct control by 2030, and to advocate for all buildings to be net zero carbon in operation by 2050.

AECOM UK+I became a signatory in September 2020.



1. COMMIT

All buildings within direct control of the organisation to operate at net zero carbon by 2030, and all buildings by 2050.

2. DISCLOSE

Measure, disclose and assess annual asset and portfolio energy demand and carbon emissions.

3. ACTION

Develop and implement a decarbonisation roadmap outlining key actions and milestones.

4. VERIFICATION

Demonstrate enhanced energy performance, reduced carbon emissions and progress towards net zero carbon assets and portfolio.

5. ADVOCATE

Demonstrate leadership to support the wider transition towards net zero carbon buildings.

CARBON OFFSETTING AND CARBONNEUTRAL CERTIFICATION

In FY20 AECOM UK+I offset our Scope 1 (owned fleet), Scope 2 (office energy), business travel and waste emissions to become certified as CarbonNeutral® by contracting the services of Natural Capital Partners (NCP).

NCP recognised as Best Offset Retailer by Environmental Finance for nine years running, Best Advisory Service for the last three years and co-founded of International Carbon Reduction & Offset Alliance (ICROA).

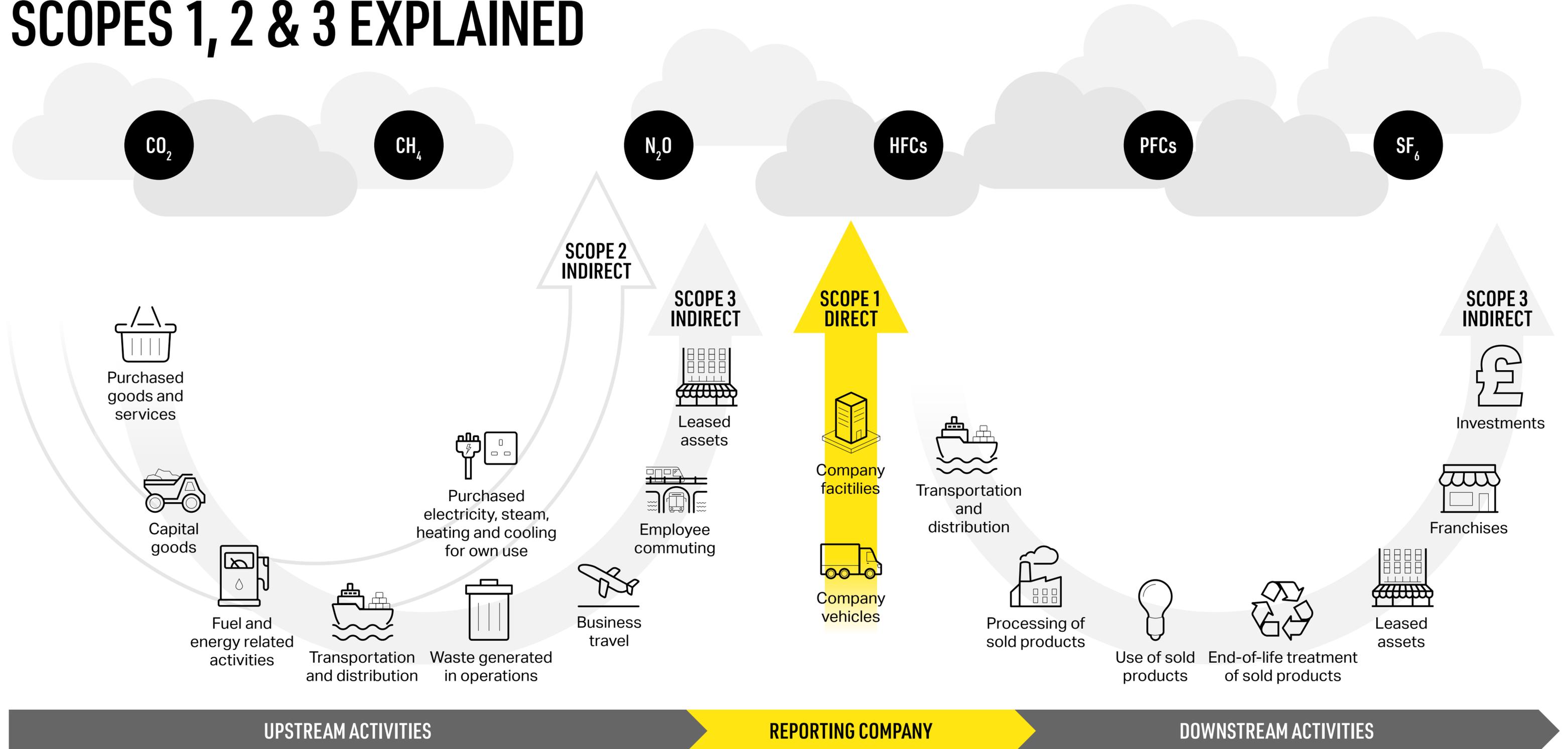
Benefits:

- Internationally recognised CarbonNeutral® certification
- 100 per cent renewable electricity consumption via Energy Attribute Certificates
- High quality and aligned carbon offset portfolio

Project type	Project name	Location
Renewable energy	Soma wind energy	Turkey
Community/household	Sub-Saharan Africa improved water infrastructure	Malawi, Uganda, Eritrea, Rwanda
Nature based	Keo Siema REDD+ Forest Protection	Cambodia



SCOPES 1, 2 & 3 EXPLAINED



OTHER DECLARATIONS AND PLEDGES



<p>PLEDGE TO NET ZERO https://www.pledgetonetzero.org/</p>	<p>The initiative has been developed by the environmental services sector with the aim of making the sector a leader for taking action on climate change. It was co-founded by SocEnv, ACE, IEMA and EIC, together with WSP and AECOM.</p>
<p>ARCHITECTS DECLARE https://www.architectsdeclare.com/</p>	<p>A network of architectural practices committed to addressing the climate and biodiversity emergency. AECOM is a signatory.</p>
<p>BUILDING SERVICES ENGINEERS DECLARE https://www.buildingservicesengineersdeclare.com/</p>	<p>A network of engineering services practices committed to addressing the climate and biodiversity emergency. AECOM is a signatory.</p>
<p>CIVIL ENGINEERS DECLARE https://www.civilengineersdeclare.com/</p>	<p>A network of civil engineering practices committed to addressing the climate and biodiversity emergency. AECOM is a signatory.</p>
<p>PROJECT MANAGERS DECLARE https://uk.projectmanagersdeclare.com/</p>	<p>A network of project management practices committed to addressing the climate and biodiversity emergency. AECOM is a signatory.</p>
<p>STRUCTURAL ENGINEERS DECLARE https://www.structuralengineersdeclare.com/</p>	<p>A network of structural engineering practices committed to addressing the climate and biodiversity emergency. AECOM is a signatory.</p>

AECOM UK+I KPI'S

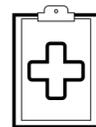
SETTING KPI'S - OUR RESEARCH



Industry wide guidance from UKGBC, LETI, RIBA and CIBSE were investigated.



A diverse group of AECOM staff reviewed key sectors and researched trends and evidence from AECOM and our clients and competitors.



Health sectors which aren't in LETI have been analysed separately with the AECOM UK healthcare group and targets agreed.



We have set more ambitious timescales than LETI and RIBA, positioning AECOM as a market leader.

AECOM KPI'S BY SECTOR

AECOM TARGETS FOR 2025	Scope 1 Operational Energy kWh/m ² /annum			Scope 2 Embodied Carbon A to C (exc B6, B7) KgCO ₂ e /m ²			Water l/person/day	
	AECOM 2025	LETI	RIBA 2030	AECOM 2025	LETI	RIBA 2030	AECOM 2025	RIBA 2030
Residential – low rise	35	35	35	300	625	300	75	75
Residential – high rise	35	35	35	450	800	300	75	75
Commercial (landlord)	55	55	55	500	1200	500	10	10
Commercial (tenant)	TBA	?	?	TBA	TBA	TBA		
Healthcare primary care	80	exc	exc	600	exc	exc	HTM	exc
Healthcare acute hospital	150 – 250	exc	exc	900	exc	exc	HTM	exc
Schools	55	65	55	500	900	500	BB	exc

RIBA 2030 CHALLENGE KPI'S – NON DOMESTIC



Riba 2030 climate challenge target metrics for non-domestic buildings

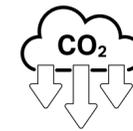
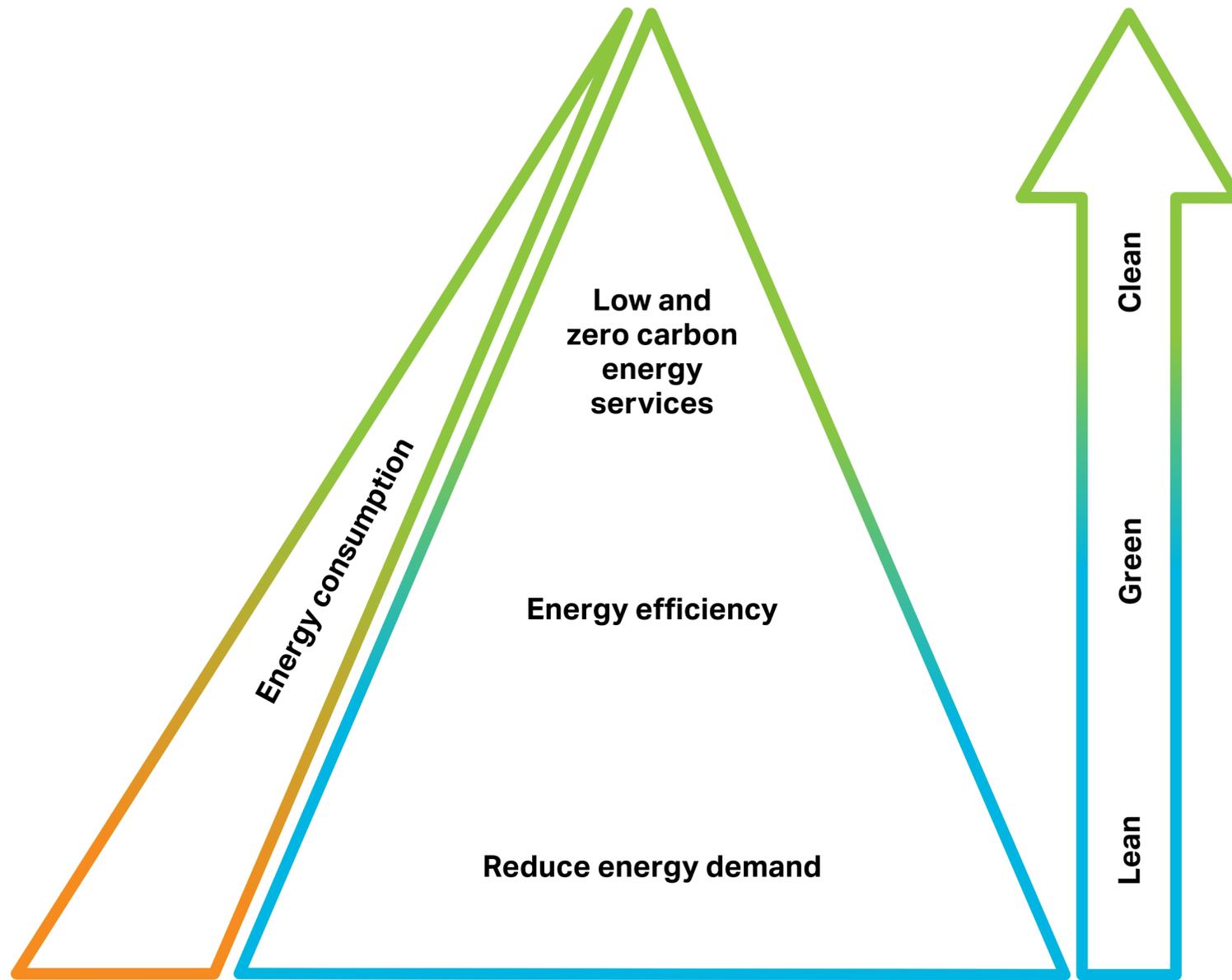
**AECOM 2025 NOT
2030 TARGET**

Riba sustainable outcome metrics	Current benchmarks	2020 targets	2025 targets	2030 targets	Notes
Operational energy kWh/m ² /y 	225 kWh/m ² /y DEC D rated (CIBSE TM46 benchmark)	<170 kWh/m ² /y DEC C rating	<110 kWh/m ² /y DEC B rating	<0 to 55 kWh/m ² /y DEC A rating	UKGBC net zero framework 1. Fabric first 2. Efficient services, and low carbon heat 3. Maximise onsite renewables 4. Minimum offsetting and UK schemes (CCC) prioritised
Embodied carbon kgCO ₂ e/m ² 	1100 kgCO ₂ e/m ² (M4i benchmark)	<800 kgCO ₂ e/m ²	<650 kgCO ₂ e/m ²	<500 kgCO ₂ e/m ²	RICS whole life carbon (A-C) 1. Whole life carbon analysis 2. Using circular economy strategies 3. Minimum offsetting and UK schemes (CCC) prioritised
Potable water use Litres/Person/Day 	<16 l/p/day (CIRA W11 benchmark)	<16 l/p/day	<13 l/p/day	<10 l/p/day	CIBSE Guide G

<https://www.architecture.com/about/policy/climate-action/2030-climate-challenge>

BEING ACCOUNTABLE TO OUR DESIGN PRINCIPLES

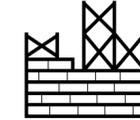
HOW WILL AECOM STAY ACCOUNTABLE?



Adopt LETI/RIBA targets (including the RIBA targets by 2025 instead of 2030)



Build less or refurbish as first design option, following circular economy principles



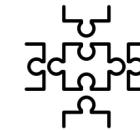
Build no basements



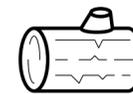
Design all electric



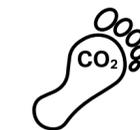
Use passive design/mixed mode vent for seasonal change



Deliver zonal control and align building commissioning with design specification



Consider timber/CLT (with sequestration) or low carbon materials as first choice (where possible) and understand supply chain



Use Carbon Offsets as a 'utility bill' — target no offsets by 2030

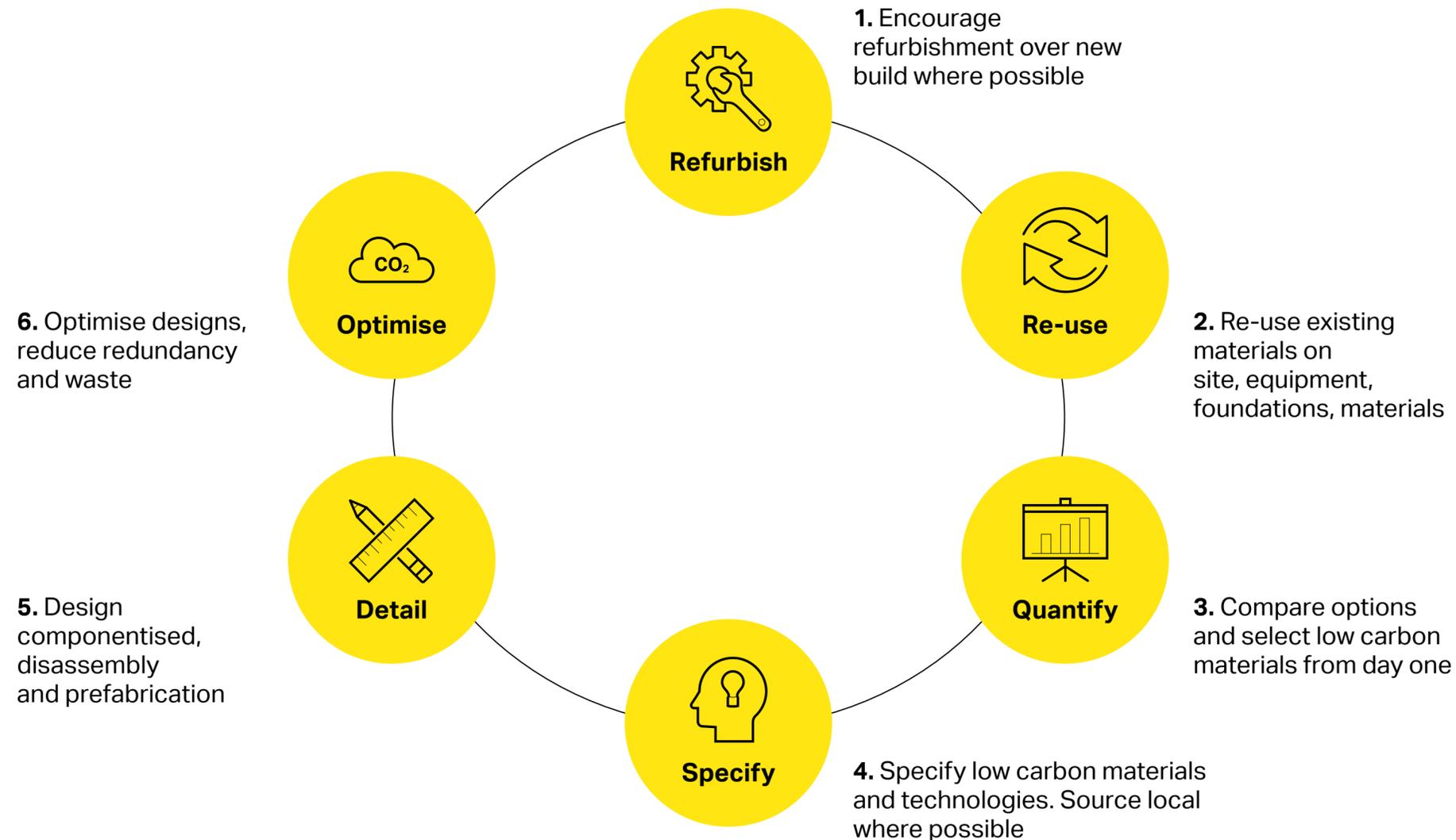


Share ambition through Building Engineers Declare and other professional institutes

DESIGN CONSIDERATIONS FOR REDUCING EMBODIED CARBON



To strive towards a low carbon approach to embodied energy, we encourage our 'rule of six' principles:



CLIENT AND INDUSTRY ENGAGEMENT – THOUGHT LEADERSHIP

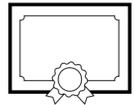
SHOWCASING OUR THOUGHT LEADERS: RECENT MEDIA AND OPINION PIECES

Title/description	Date	Author
<p>Cleaner, greener homes must be the top priority after coronavirus Upgrading existing homes and making sure new buildings are up to scratch are key to post-pandemic prosperity, argues AECOM's Robert Spencer https://www.businessgreen.com/opinion/4016950/cleaner-greener-homes-priority-covid-19</p>	25-Jun-20	Robert Spencer, AECOM
<p>Getting a clearer picture of a building's energy performance: the whole picture now has to 'Be Seen' The Greater London Authority's new planning policy guidance aims to shed light on the actual operational energy performance of new buildings. But are we ready? https://www.londonfirst.co.uk/news-publications/blog/getting-a-clearer-picture-of-a-buildings-energy-performance-the-whole</p>	4-Jun-20	Dave Cheshire, AECOM
<p>How circular is your building (webinar) https://communications.aecom.com/circularbuilding</p>	Mar-20	Dave Cheshire, AECOM
<p>The UK's transport decarbonisation plan points to a radical, sustainable new path But buy-in from the business community will be critical to accelerate green transport, argues AECOM's Robert Spencer https://www.businessgreen.com/opinion/4014731/uk-transport-decarbonisation-plan-radical-sustainable-path</p>	4-May-20	Robert Spencer, AECOM
<p>Businesses must take bigger strides towards net zero carbon Achieving great change comes from our ability to work as a community, not as individuals — and nowhere is this more applicable than in the drive to reach net zero carbon emissions by 2050. https://www.londonfirst.co.uk/news-publications/blog/businesses-must-take-bigger-strides-towards-net-zero-carbon</p>	14-Apr-20	Robert Spencer, AECOM
<p>AECOM serves up science-based climate action goals https://www.businessgreen.com/news/4013876/aecom-serves-science-climate-action-goals https://www.edie.net/news/6/AECOM-shoots-for-20—reduction-in-emissions-through-approved-science-based-targets/</p>	Apr-20	Robert Spencer, AECOM
<p>AECOM develops digital platform for environmental asset management Aecom has developed a new natural capital accounting platform which enables land and infrastructure owners to better manage and value their environmental assets. https://www.newcivilengineer.com/innovative-thinking/aecom-develops-digital-platform-for-environmental-asset-management-12-06-2020/</p>	12-Jun-20	Robert Spencer, AECOM
<p>We must cross lines that limit our thinking for true net zero results https://www.constructionnews.co.uk/sustainability/must-cross-lines-limit-thinking-true-net-zero-results-18-11-2019/</p>	18-Nov-19	Dave Cheshire, AECOM

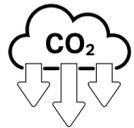
HOW CAN AECOM HELP DELIVER OUR CLIENTS NEEDS?



Policy research & implementation



Sustainable design & certification



Low and zero carbon strategies



Industry guidance



HOW CAN YOU HELP?

WE ALL NEED TO BE SUSTAINABILITY CHAMPIONS!



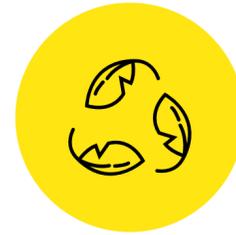
Talk to AECOM about this subject, as well as with your colleagues, suppliers and clients



Encourage everyone to **join us on this journey**



Lock in **positive behaviour change** following the pandemic



Use **sustainability moments** to start meetings



Set up teams of sustainability volunteer champions



Roll out training



Set targets and track progress against them



Integrate climate considerations into **processes**

ABOUT AECOM

AECOM is the world's premier infrastructure consulting firm, delivering professional services throughout the project lifecycle – from planning, design and engineering to program and construction management. On projects spanning transportation, buildings, water, energy and the environment, our public- and private-sector clients trust us to solve their most complex challenges. Our teams are driven by a common purpose to deliver a better world through our unrivaled technical expertise and innovation, a culture of equity, diversity and inclusion, and a commitment to environmental, social and governance priorities. AECOM is a Fortune 500 firm and its Professional Services business had revenue of \$13.2 billion in fiscal year 2020. See how we deliver what others can only imagine at [aecom.com](https://www.aecom.com) and [@AECOM](https://www.instagram.com/aecom).

NET ZERO EMISSIONS BUILDING TASKFORCE

Taskforce Leader

Robert Spencer

Project Manager

Lucy Bradbury

**Tools and
Methodology
Group Leader**
Adam Parkes

**KPI'S for B+P
Group Leader**
David Buick

**Training and Marketing
Group Leader**
Jody Wilkinson

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