



The Road to COP26: Tackling Net Zero Whole Life Carbon

#BuildingLife

UKGBC - Together for a better built environment

Today's speakers & panellists

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John Alker
Director of Policy &
Places
UKGBC



Martina Otto
Head of the Cities Unit
at UNEP, Head of the
Secretariat of the
GlobalABC



Tom Spurrier
Project Lead
UKGBC



Will Hall
Head of Buildings and
Industry for COP26,
BEIS



Charlotte Foster
MD of Large Corporate
Commercial Real Estate
Natwest



Dr. Jannik Gieseke
Research Fellow in
Industrial Climate Policy,
University of Leeds



Stephen Richardson
Director, Europe Regional
Network
WorldGBC



Agenda

10mins	Welcome	John Alker
5mins	Global Status Report for Buildings	Martina Otto
10mins	Roadmap overview	Tom Spurrier
5mins	UK Government perspective	Will Hall
35mins	Panel discussion	Panellists
	<ul style="list-style-type: none">• Charlie Foster• Dr. Jannik Gieseke• Stephen Richardson	
	Audience Q&A	
	Close	

To radically improve the sustainability of the built environment, by transforming the way it is planned, designed, constructed, maintained and operated.



500

Members



150

C-suite
Leaders



70

GBCs



Built environment businesses & COP26

- Committed to net zero & taking action
- Developing solutions to 'build back better' – UK & globally
- Need government policy to help drive and unlock further progress



Net Zero Carbon Buildings Commitment

- ✓ Net zero carbon portfolios in operation by 2030
- ✓ Advocate for net zero carbon built environment by 2050
 - + *Whole life carbon component in development*

ARUP



STANHOPE

TROUP
BYWATERS
+ ANDERS

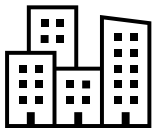


Signatory snapshot



42

UKGBC member
signatories



4,790

Buildings and
offices



16.7m+

Square metres



1.19m+

t/CO₂

Note: figures are based on self-reported data from signatories

Whole Life Carbon Roadmap

WorldGBC consortium



Funders

Laudes ———
— Foundation

IKEA Foundation





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The 2020 Global Status Report for Buildings and Construction

Martina Otto

Head of the Cities Unit at UNEP

Head of the Secretariat of the GlobalABC

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Over **150**
members:

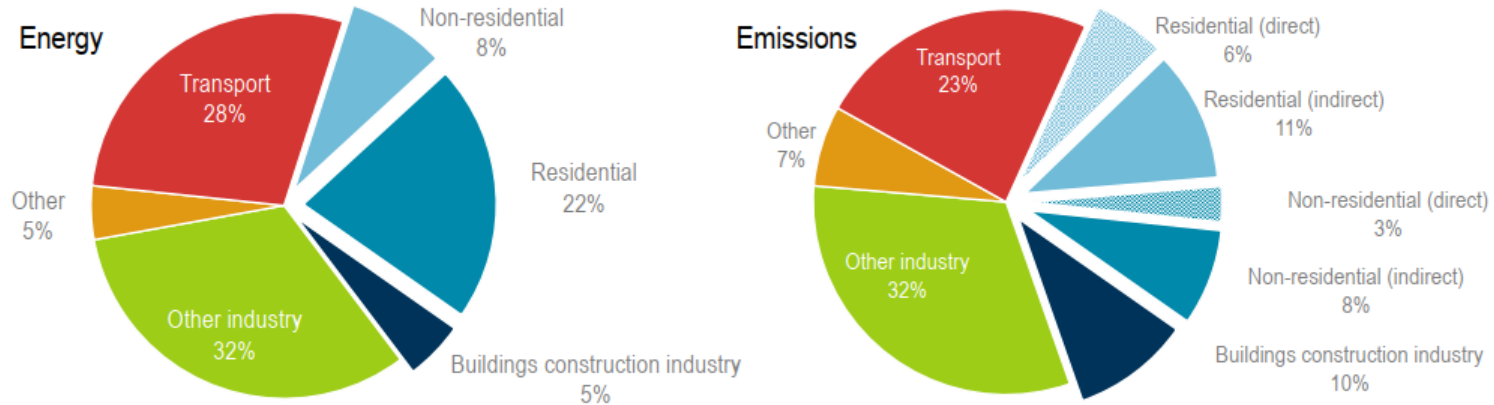
governments, private sector, civil society,
research and intergovernmental organisations



Common Vision: A zero-emission, efficient and
resilient buildings and construction sector

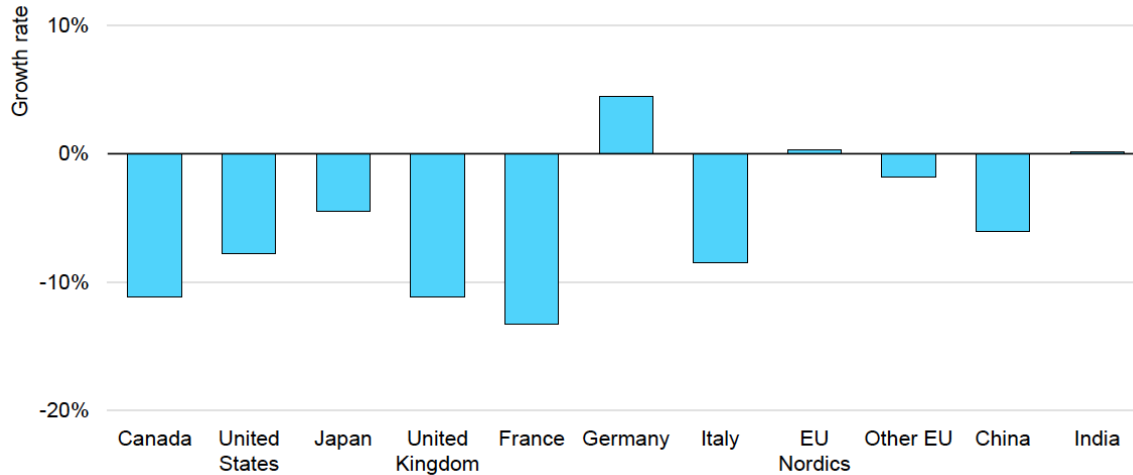
- » A global advocate and catalyst
- » A trusted platform to set targets & track progress and facilitate support to countries in setting priorities & measures based on their situation.

The 2020 Buildings-GSR: CO2 emissions



Despite stable energy demand, CO2 emissions from building operations and construction reached their highest level ever recorded in 2019 at around 10 GtCO₂, or 38% of global CO₂ emissions.

The 2020 Buildings-GSR: COVID-19 impacts



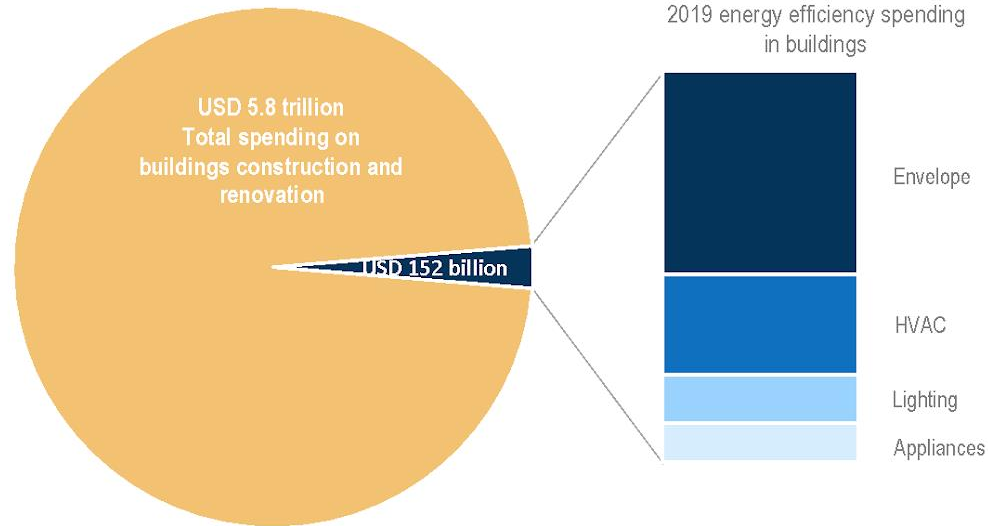
IEA 2020. All rights reserved.

Notes: Buildings construction activity is estimated based on the average number of square metres under active construction for a given year, itself derived from construction starts and housing completions data. The EU Nordics country grouping includes Denmark, Finland and Sweden.

Due to the pandemic, many countries have reported a **significant slowdown in buildings completions**.

The effect of the pandemic on the construction sector might result in **embodied emissions from buildings being around 5% lower in 2020** than the previous year [[IEA ETP 2020](#)].

The 2020 Buildings-GSR: Investment & financing



Spending for energy efficient buildings **increased in 2019 for the first time in the past three years.**

Yet, at an increase of just 3%, this is outpaced by investment in conventional buildings and construction.

GlobalABC Roadmaps



A Framework and a process

to support setting of targets and milestones for decarbonisation of the buildings and construction sector

- » Consultative process, involving 700 stakeholders globally
- » 8 priority areas: urban planning, new and existing buildings, building operations, systems, appliances, materials, energy
- » Short-term, medium term and longer-term targets and milestones, with policy, technology and finance solutions
- » Now being taken to the national level, incl. via national alliances

Example

New buildings

Status

Most construction occurring in places with no codes for mandatory minimum energy performance

Recommendations

Prioritise high efficiency standards
Develop decarbonisation strategies, implement mandatory building energy codes, incentivise high performance





Global Alliance
for Buildings and
Construction

GlobalABC / UNEP – 11 December 2020

**JOIN US ON 16 DECEMBER 2020,
3PM CET FOR THE REPORT LAUNCH**



**Contact us at global.abc@un.org
Visit www.globalabc.org**

Project Team



Tom Spurrier
Project Lead
UKGBC (seconded from
Hoare Lea)



Alexandra Jonca
Project Officer
UKGBC



Alex Green
Stakeholder Engagement
Adviser
UKGBC (seconded part-
time from BPF)



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Net Zero Whole Life Carbon Roadmap for the UK Built Environment

Tom Spurrier
Project Lead, UKGBC
Associate Director, Sustainability, Hoare Lea

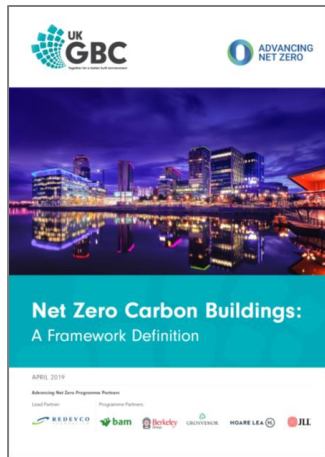
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Advancing Net Zero

BBP | BETTER BUILDINGS PARTNERSHIP

LONDON
ENERGY
TRANSFORMATION
INITIATIVE



RIBA 
Royal Institute of
British Architects



Case Studies



BRITISH
PROPERTY
FEDERATION



**Net Zero Carbon
Buildings Commitment**



Revo
Retail. Property. Community.

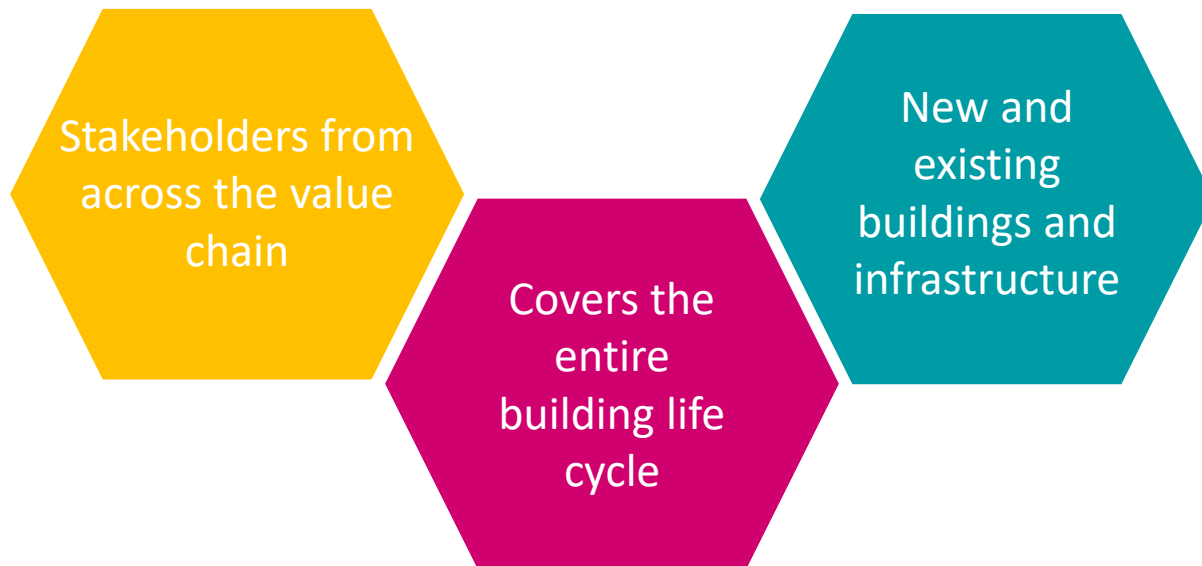


Net zero whole life carbon roadmap objectives



- Build consensus on a pathway to a net zero carbon built environment among businesses and industry bodies
- Develop carbon targets in line with the Paris Agreement
- Set out actions, owners and processes to achieve targets
- Enable consistent sector-based action plans

Scope



Whole Life Carbon Vision

2050

New buildings, infrastructure and renovations will have **net zero embodied carbon**, and all buildings, including existing buildings, must be **net zero operational carbon**.

Net Zero Operational Carbon

Definition

A net zero carbon building is highly energy efficient with all remaining energy from onsite and/or offsite renewable sources

Guiding Principles

- 1. Measure and disclose carbon**
Carbon is the ultimate metric to track, and buildings must achieve an annual operational net zero carbon emissions balance based on metered data
- 2. Reduce energy demand**
Prioritise energy efficiency to ensure that buildings are performing as efficiently as possible, and not wasting energy
- 3. Generate balance from renewables**
Supply remaining demand from renewable energy sources, preferably on-site followed by off-site, or from offsets
- 4. Improve verification and rigour**
Over time, progress to include embodied carbon and other impact areas such as zero water and zero waste

Net Zero Carbon Buildings Commitment

All buildings within direct control to operate at net zero carbon by 2030



2030

New buildings, infrastructure and renovations will have at least **40% less embodied carbon** with significant **upfront carbon** reduction, and all new buildings must be **net zero operational carbon**.

Net Zero Embodied Carbon

Definition

A net zero embodied carbon building (new or renovated) or infrastructure asset is highly resource efficient with **upfront carbon** minimised to the greatest extent possible and all remaining embodied carbon reduced or, as a last resort, offset in order to achieve net zero across the lifecycle.

Guiding Principles

- 1. Prevent**
Avoid embodied carbon from the outset by considering alternative strategies to deliver the desired function
- 2. Reduce and optimise**
Evaluate each design choice in terms of the upfront carbon reductions and as part of a whole lifecycle approach
- 3. Plan for the future**
Take steps to avoid future embodied carbon during and at end of life
- 4. Offset**
As a last resort, offset residual embodied carbon emissions within the project or organisational boundary where possible or if necessary through verified offset schemes

Key outputs

1



A report setting out the actions, policies and processes needed to manage the net zero transition in the built environment

2



A 1.5° aligned science-based trajectory for reducing built environment emissions, including targets for relevant sub-sectors

Roadmap Report



Actions, initiatives,
processes to drive
emission reductions

Facilitate
collaboration

Governance structure
to manage the
transition

Secure cross-sector
commitments and
actions

Processes for
developing sub-sector
action plans

Catalyse policy
change



1.5° aligned carbon trajectory



Carbon budget for UK built environment



Sub-targets for built environment
sub-sectors

Foundation for setting
SBTs by organisation
& benchmarks by
project type



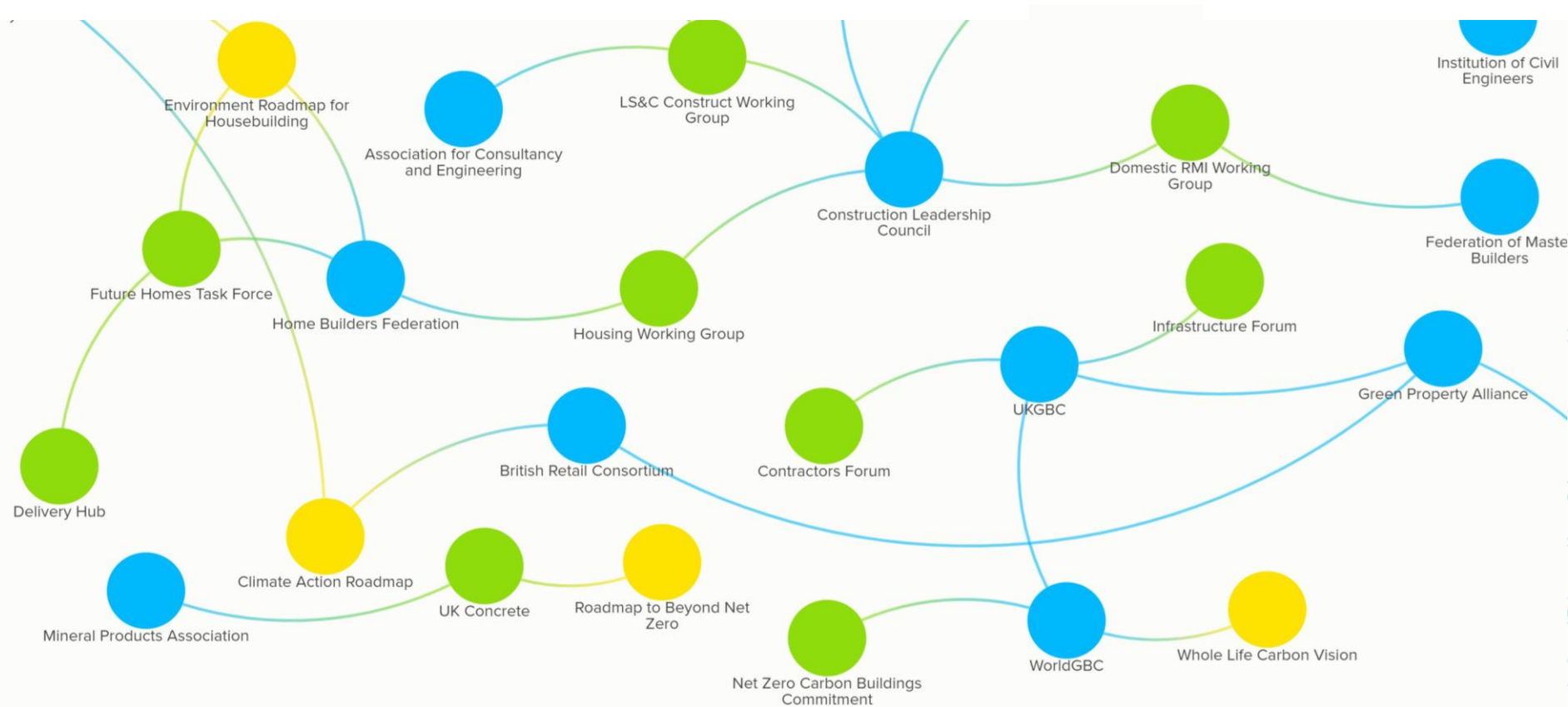
Delivery process



- Industry-wide advisory/steering group to oversee project
- Expert input from key stakeholders across value chain, academia, policy
- Modelling of science-based targets
- Industry-wide consultations on draft roadmap proposals and actions
- Government engagement – to align roadmap with key policies and upcoming strategies
- Endorsements of final roadmap & commitment to subsequent actions



UK landscape



Timeline

[illegible]

Calls to Action

- If you are interested in getting involved in the Roadmap project as a relevant institution or industry body, contact Alexandra.Jonca@ukgbc.org
- Sign up to the Advancing Net Zero mailing list for general updates about the roadmap and other net zero initiatives ANZ@ukgbc.org



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UK Government Perspective

Will Hall

Head of Buildings and Industry for COP26, BEIS

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Panel Discussion



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Thank you!

Please fill in the evaluation form you are directed to after closing.

ANZ@UKGBC.org