



Net Zero: an insight for Emerging Professionals

Agenda

Introduction to ACE Emerging Professionals North West

Yousef Salman, Atkins

Net Zero campaign

Poppy Kettle, ACE/EIC

Infrastructure and the 2050 Net Zero target

Chris Hudson, ICE North West

WSP leading in Net Zero

Stephanie Barton, WSP

Manchester Climate Change Framework

Jonny Sadler, Manchester Climate Change Agency

Q&As



Yousef Salman
Deputy Chair
ACE Emerging Professionals North West

Useful links

Find out more about the ACE Future of Consultancy campaign [here](#).

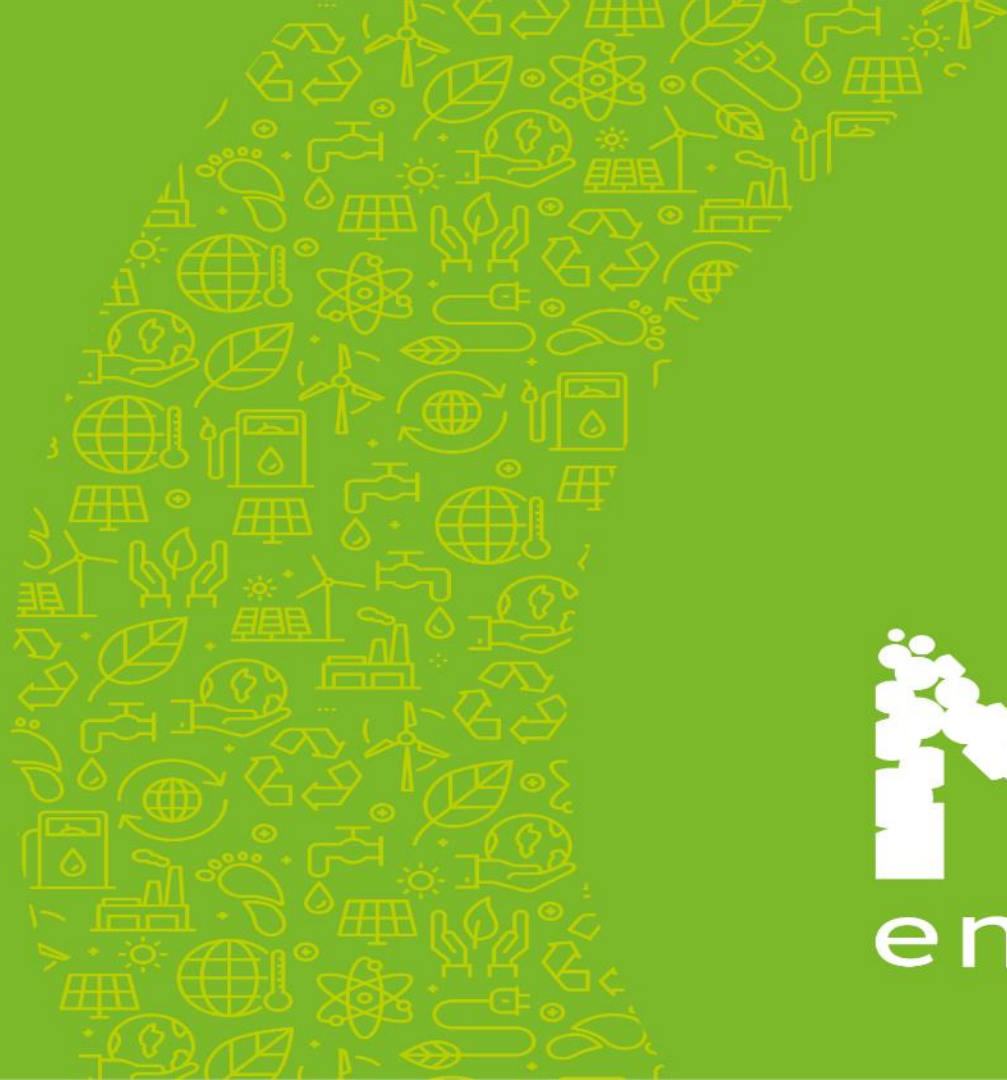


Housekeeping

- This webinar is best experienced through headphones which will cut out the background noise.
- To ask questions please go to “**questions**” in your control panel (the sidebar with the controls to the right of your screen). You don’t have to wait until the Q&A session to ask your question, send them throughout the webinar.
- We’ll try and answer as many as possible, but don’t worry we’ll also answer any others we haven’t had time to cover after the webinar.
- Don’t worry if you miss anything we will be uploading this to our website in the next few days, so if you want to listen again to us you can!



Poppy Kettle
Net Zero Policy Adviser
ACE/EIC



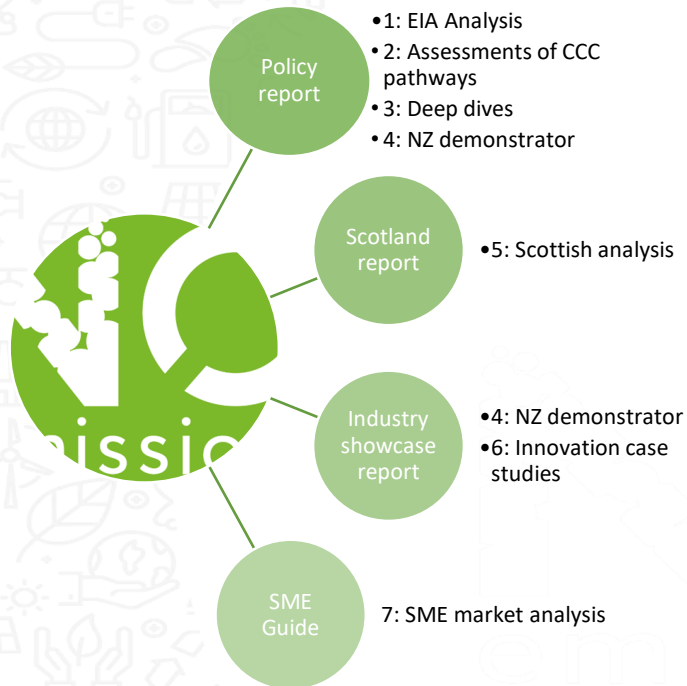
NO
emissions

Aims and scope

- Make the argument that that the net zero economy is something you achieve by proactively designing and building it, you can't create it just by blocking controversial schemes.
- Highlight crucial role ACE/EIC members will play in delivering Net Zero (focusing on built environment/infrastructure).
- Help government think through policy/regulatory/planning changes needed to enable business to deliver infrastructure projects that are needed for both Net Zero transition and wider economic objectives.
- Help ACE/EIC members understand and position themselves for a market where NZ considerations could become paramount.

Scope: infrastructure/built environment delivery in the context of the UK Net Zero 2050 territorial target.

Outputs



Workstream updates

- EIA Research
- BECCS/DACCS infrastructure
- Net Zero hub on infrastructure Intelligence
- Member survey
- COP 26 event
- Scottish research
- 'Deep dives'
- Net Zero demonstrator
- Net Zero guide for SME members: Not yet started



Changing context for the project

- Business has been preoccupied with dealing with the immediate impact of the crisis
- COVID-19 has dominated the media agenda
- Government has also been preoccupied with the crisis.
- The UK is entering a severe recession.
- COP 26 has been postponed to November 1-12th



Revised government timeline

June: CCC publish annual 'progress report' to Parliament which will include initial analysis around impact of Covid 19 on Net Zero transition

July: Emergency Budget?

Q3/Q4? Treasury review of cost distribution of Net Zero transition – timescale for this work now unclear, and National Infrastructure Strategy.

December: CCC provides advice to government on 6th carbon budget (covering 2033-37)

2021: International engagement leading towards COP26 on 1-12 November 2021



Green Recovery debate

- Govt should use capital- or labour-intensive CCC Net Zero recommendations as measures to boost economy, eg: EV charging build out; housing retrofit to install zero-carbon heating
- No bail outs for high carbon sectors unless tied to restructuring in line with Net Zero direction
- Try to shape post Covid behaviour changes in sustainable direction (eg active travel, home working, remote medical consultations, less flying)
- Use low oil price to bring in carbon taxes
- Reinforce ESG reporting etc to drive green finance
- Public funding for relevant innovation



Emerging Issues

- Policy/planning/project disconnect
- Inconsistent carbon methodologies
- Dropping the baton





Chris Hudson
Regional Chair
ICE North West



State of the Nation 2020: Infrastructure and the 2050 net-zero target

State of the Nation 2020 – Net Zero

Chris Hudson CEng MICE MCIHT
Engineering Manager (VolkerStevin)

ICE North West regional Chair 2020/21



State of the Nation 2020 – Net Zero Recommendations



Strengthening policy-making



Developing the infrastructure



Ensuring businesses respond



Ensuring a just transition



Determining who pays



Engaging the public to act



Providing the skills

State of the Nation 2020 – Net Zero Recommendations



Ensuring businesses respond

4. Models of regulation should be updated to promote the achievement of net zero, and enable owners and managers of regulated assets to take longer-term and more flexible strategic planning and investment decisions.



State of the Nation 2020 – Net Zero Recommendations



Ensuring businesses respond

5. Through procurement policy, clients should require better collection, sharing and use of data on infrastructure assets to enable improved decision-making in the context of the net-zero target.



State of the Nation 2020 – Net Zero Recommendations



Ensuring a just transition

6. Power and responsibilities for infrastructure policy and service delivery should continue to be devolved to ensure the economic opportunities of the net zero transition are distributed throughout the UK, to support the ‘levelling up’ agenda.



State of the Nation 2020 – Net Zero

Emerging Professionals

ICE President's Future Leaders 2019/20



Holly Smith MEng GMICE
Civil Engineer (Skanska)

State of the Nation 2020
Steering Group Member



Chris Landsburgh, CEnv GMICE
Environmental & Sustainability
Manager (Wills Bros Civil)

State of the Nation 2020
Steering Group Member

A plan for transitioning infrastructure to net zero

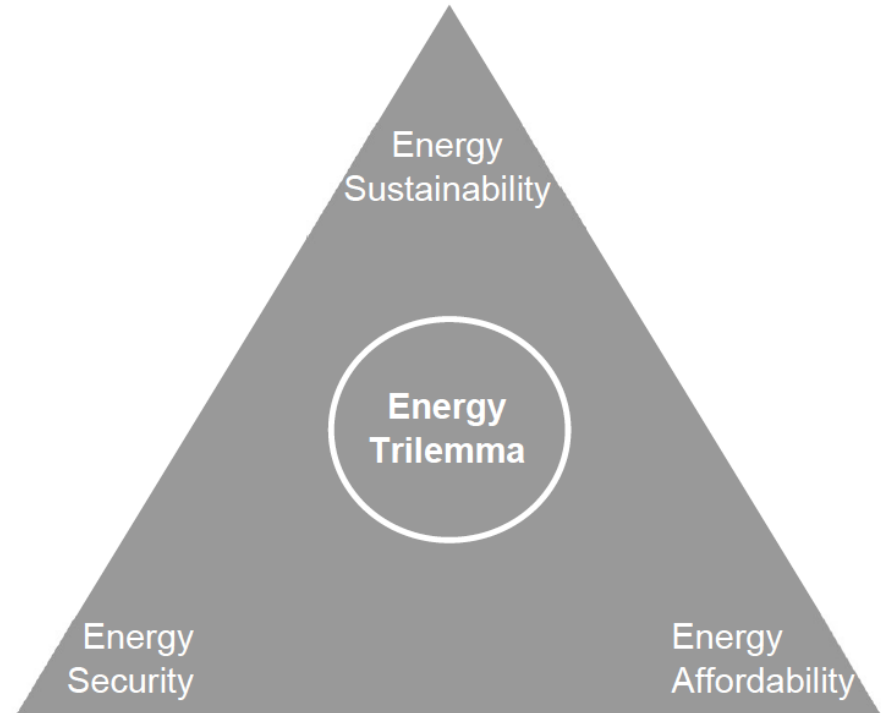
The policy choices

The paper outlines the four key areas where policy choices need to be made: the future energy mix; pathways to decarbonising transport; pathways for decarbonising heat; and reducing emissions from harder-to-abate sectors.

A plan for transitioning infrastructure to net zero

The policy choices

The paper examines the important policy choices on the future make-up of the UK's energy mix that must be made, including considering trade-offs in terms of how to decarbonise energy generation; ensure energy security; and minimise energy costs for users.

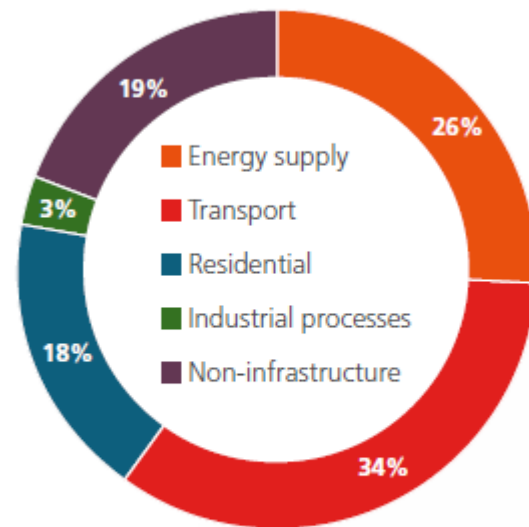


A plan for transitioning infrastructure to net zero

The policy choices

It also explores why the decarbonisation of transport must be prioritised, particularly with transport responsible for 34% of all carbon emissions.

Total UK CO2 Emissions



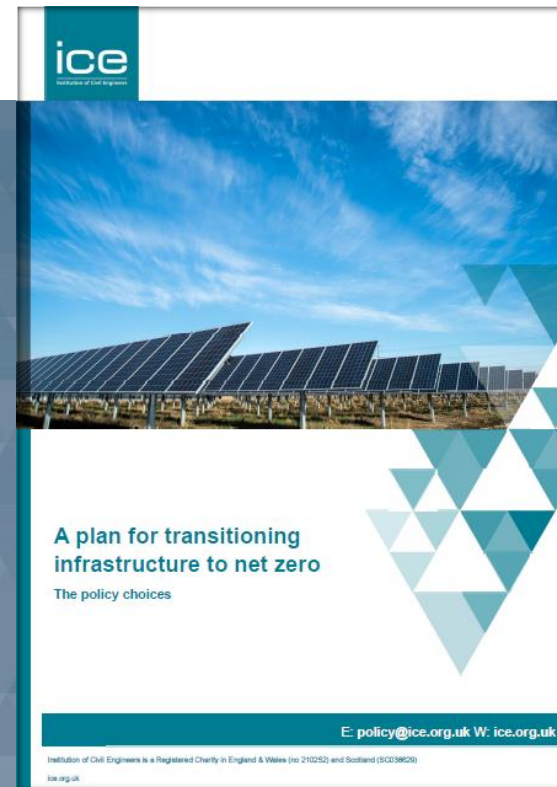
Source: BEIS (2019) Provisional Figures
Waste management rounds to 0%

A plan for transitioning infrastructure to net zero

The policy choices

The paper examines the important policy choices on the future make-up of the UK's energy mix that must be made, including considering trade-offs in terms of how to decarbonise energy generation; ensure energy security; and minimise energy costs for users.

Thank you





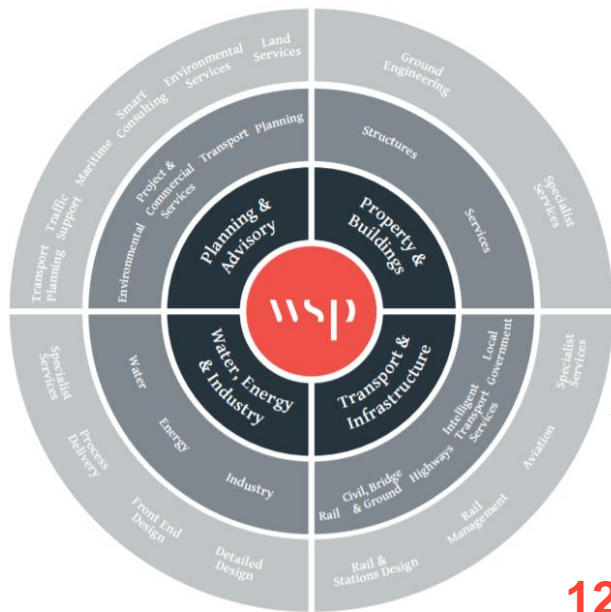
Stephanie Barton
ITS Consultant
WSP



WSP leading in Net Zero

Stephanie Barton





wsp



7,900
 CANADA


12,750
 USA, CENTRAL
 & SOUTH
 AMERICA


7,750
 UK AND
 IRELAND


6,000
 NORDICS


1,300
 CONTINENTAL
 EUROPE


350
 AFRICA


3,000
 MIDDLE EAST &
 INDIA


3,250
 ASIA


5,500
 AUSTRALIA &
 NEW ZEALAND

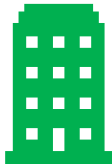
INTERNATIONAL EXPERTISE

“There is no greater agenda than mitigating climate change. Whether by cutting carbon, protecting nature or advocating for a fair transition, **achieving a net zero future will allow us to build back better**. Every day, I see this ambition driving our experts.”

Mark Naysmith
CEO, WSP UK



At a glance



WSP
Carbon
Ideas
Bank







The advice and designs that we provide are
there for the **long term**



Climate

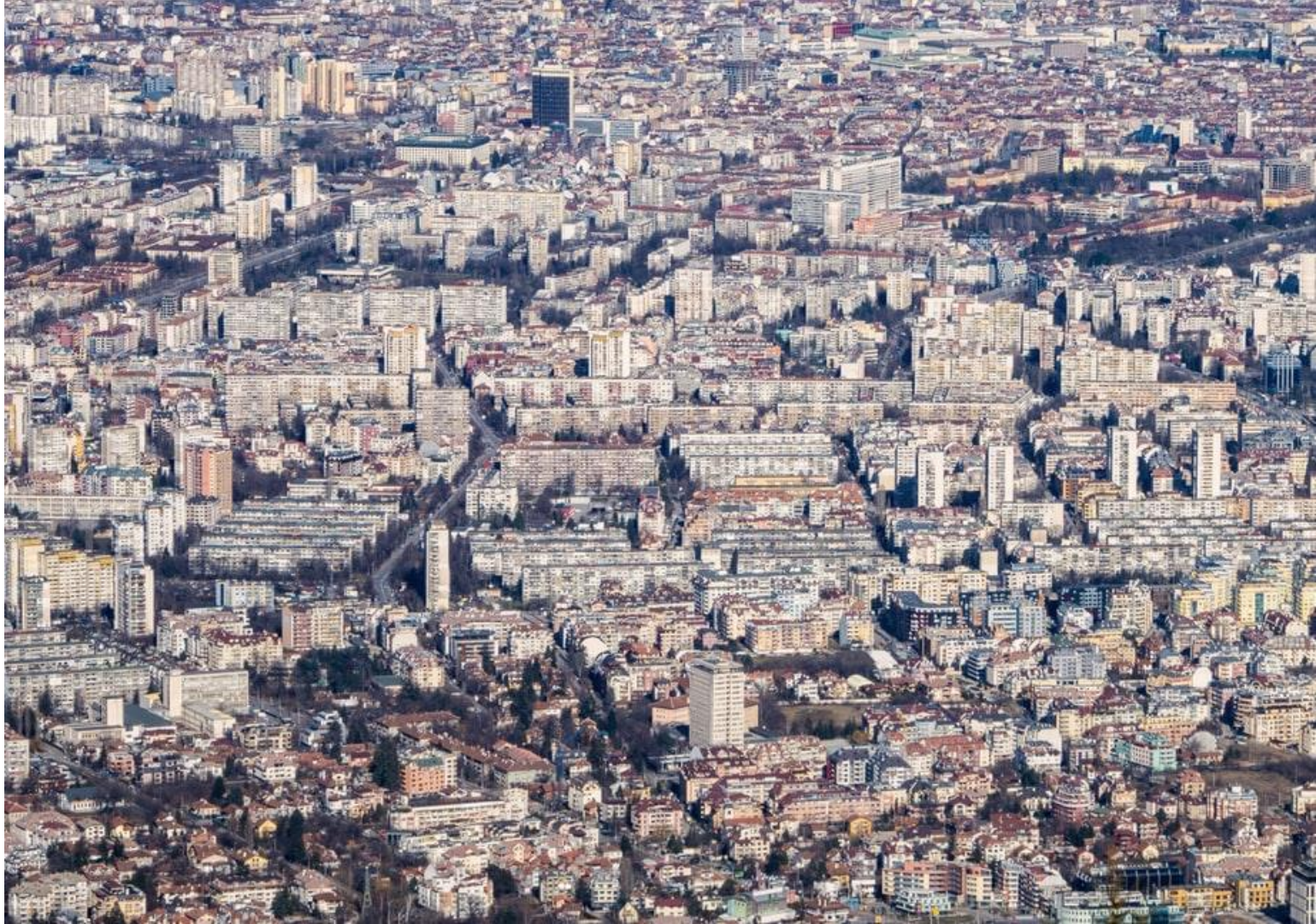


wsp

Resources

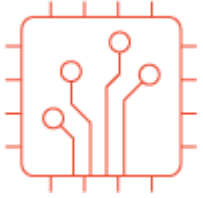


Society

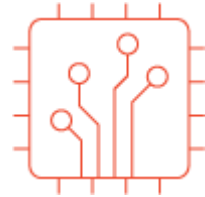


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Technology



Climate Resources Society Technology



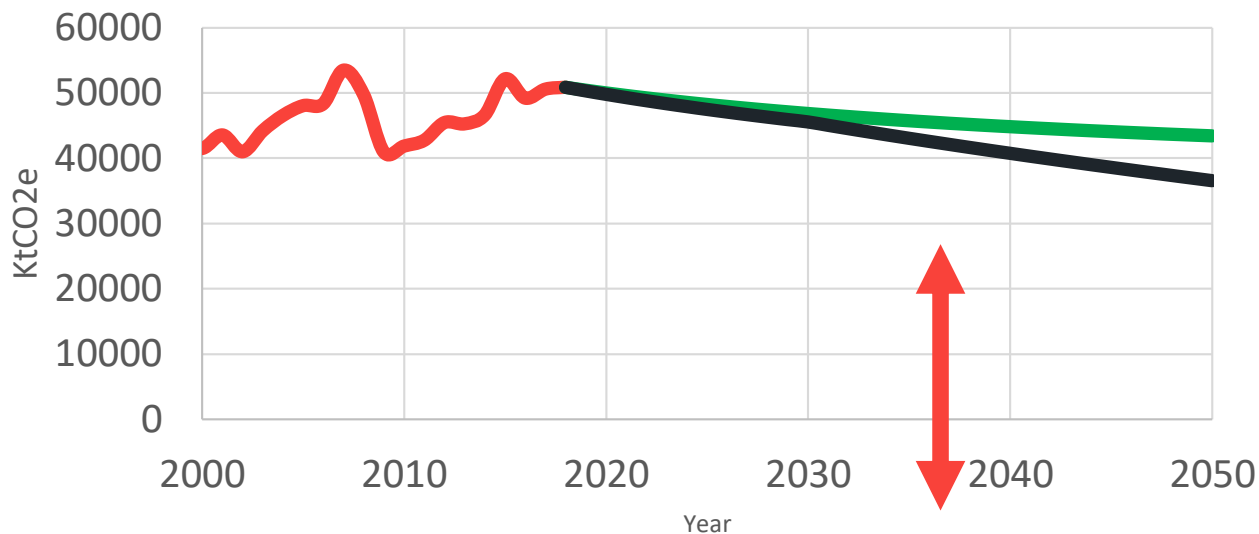
Net Zero has an impact on all four themes



Following the Paris Agreement to limit global warming “...to well below 2°C and to pursue efforts to limit the increase to 1.5°C...”, scientists estimated that global CO₂ emissions would need to reach net zero by 2055.



Construction carbon emissions reduce, but are still far from zero by 2045



- Historic Emissions
- Improvements in Resource Productivity
- Uptake in Low Carbon Vehicles



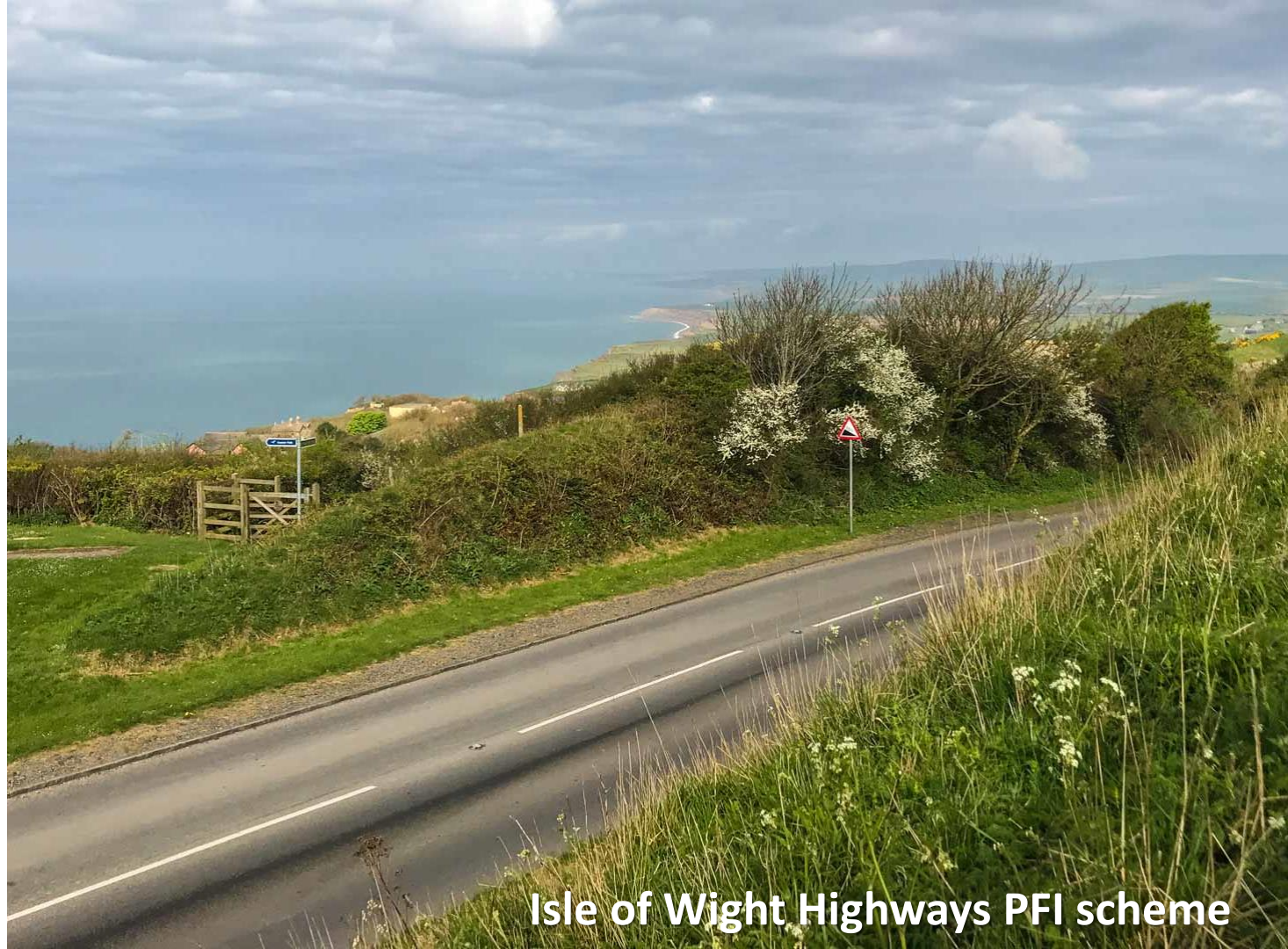
**extinction
rebellion**

GLOBAL
**CLIMATE
STRIKE**
20-27 SEPT

wsp









Paddington Square, UK



22 Bishopsgate, UK

wsp



Trans-Pennine Tunnel, UK



Future Ready from WSP

Big, bold, ambitious thinking that inspires and influences,
whatever tomorrow brings.



Stephanie Barton
Stephanie.Barton@wsp.com



Jonny Sadler
Programme Director
Manchester Climate Change Agency

WE'RE LEAVING CARBON BEHIND



Manchester Climate Change Framework 2020-25
Jonny Sadler, Programme Director
Manchester Climate Change Agency

MANCHESTER
CLIMATE CHANGE PARTNERSHIP

MANCHESTER
CLIMATE CHANGE AGENCY

 ZERO
CARBON
MANCHESTER

Agenda

1. Policy Context
2. Targets & Strategy 2020-25
3. Manchester Climate Change Partnership
4. Where Next?

Our Manchester Strategy

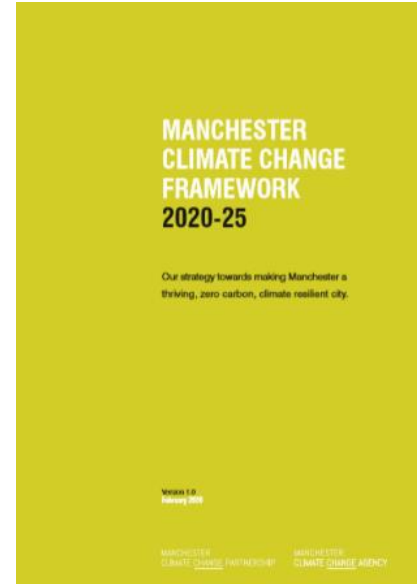
***‘Manchester will play its full part in
limiting the impacts of climate change’***



Manchester Climate Change Framework 2020-25

Our Aim:

“Manchester will play its full part in limiting the impacts of climate change and create a healthy, green, socially just city where everyone can thrive.”



Manchester Climate Change Framework 2020-25

Our Objectives:

1. Staying within our carbon budgets
2. Climate adaptation and resilience
3. Health and wellbeing
4. Inclusive, zero carbon and climate resilient economy

Social & Economic Benefits



Low Carbon Sector (GM)

20	£5.4bn	38,000	2,000
15	sales	jobs	businesses
20	£17bn	100,000	6,000
38	sales	jobs	businesses



30,000
new entrants
needed to work in the
environment and
sustainability sector



£17m/year
savings to NHS
by ending fuel poverty
in all 34,000
homes



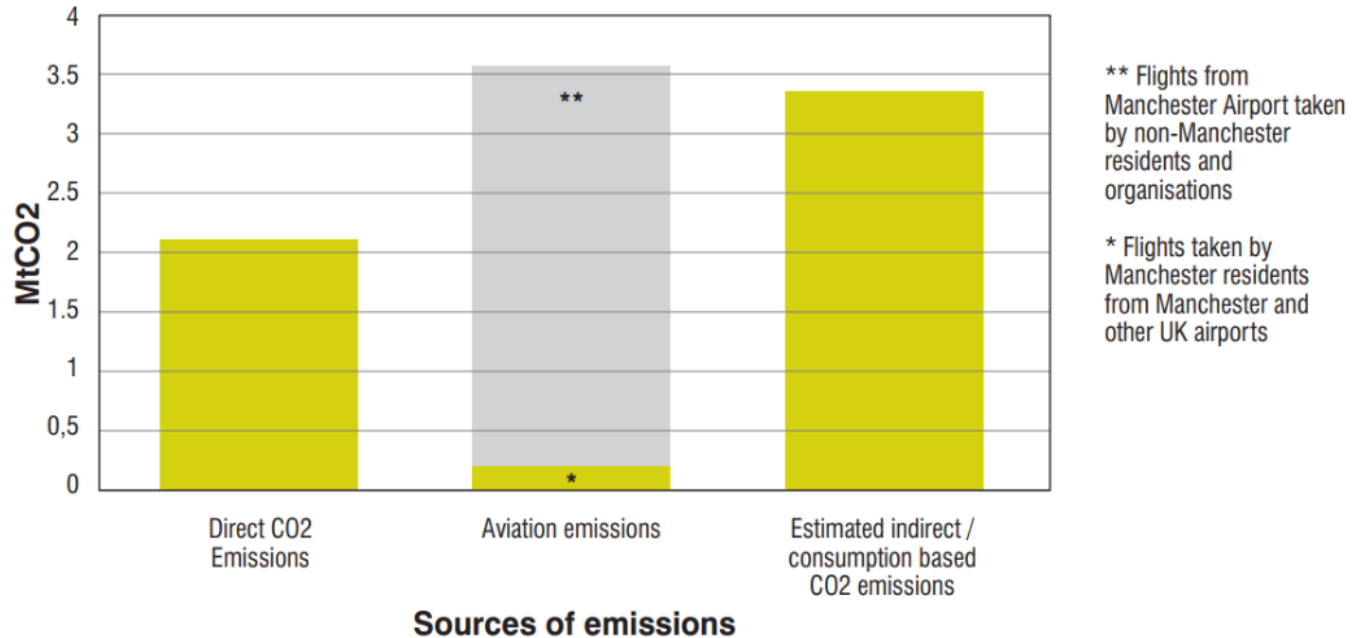
UK STEM skill gap
in low carbon sector
costing by 2023
£6.7bn
to the UK economic growth



Air Quality

10 people
die prematurely every day
£1.3bn
economic loss
from traffic congestion

Our CO₂ Emissions



Direct CO₂ Emissions – Carbon Budget

Direct CO₂ emissions sub-objective:

To emit a maximum of 15 million tonnes CO₂ from our homes, workplaces and ground transport from 2018. We will reduce our direct CO₂ emissions by at least 50% between 2020-25. In line with this budget we will emit:

- A maximum of 6.9 million tonnes during 2018-22, and
- A maximum of 3.6 million tonnes during 2023-27

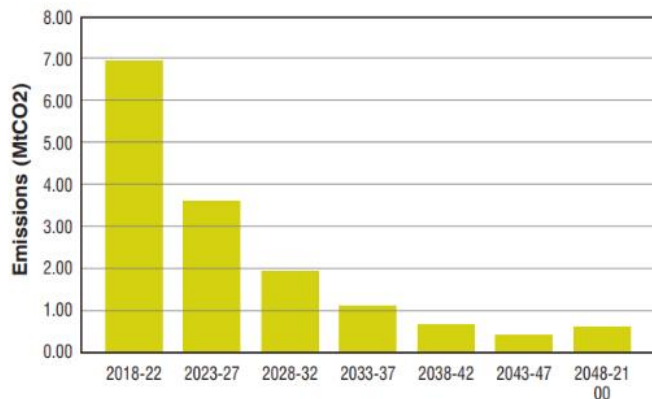
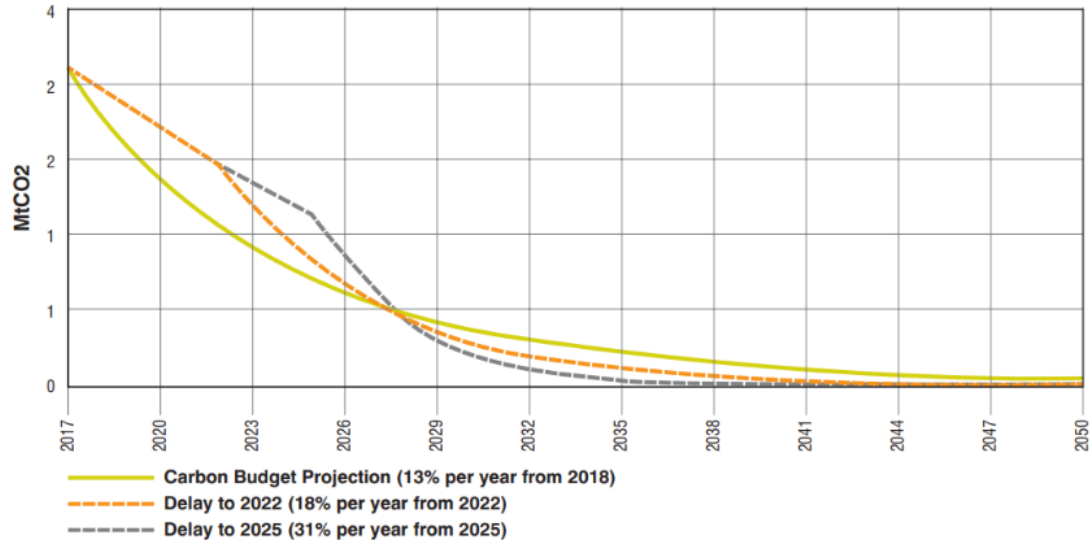


Figure 4: Emissions projections consistent with the 15 MtCO₂ budget – starting from common year (2017)

Time Period	CO ₂ budget (MtCO ₂)
2018-22	6.93
2023-27	3.59
2028-32	1.95
2033-37	1.10
2038-42	0.64
2043-47	0.38
2048-2100	0.59
Total	15.17

Table 2: Manchester's 15 MtCO₂ budget by time period

Direct CO₂ Emissions – Staying On Budget



Aviation & Consumption-based Emissions

Aviation sub-objective:

‘We want the emissions from all flights from Manchester Airport to be fully aligned with the Paris Agreement. We believe this means operating within a limited carbon budget for UK aviation, as part of a wider international budget.’

Indirect / consumption-based CO₂ emissions sub-objective:

‘To better understand the broader climate change impact of the city’s consumption of goods and services and take action to develop more sustainable consumption practices for the city’s residents and organisations.’

15 Actions for a Zero Carbon City

GETTING STARTED

1. Commit to act
2. Measure & report your CO₂
3. Awareness, education & Carbon Literacy

DIRECT EMISSIONS: BUILDINGS & TRANSPORT

4. Existing buildings & renewable energy
5. Transport
6. New developments

CONSUMPTION-BASED EMISSIONS & OTHERS

7. Food
8. Things you buy and throw away
9. Construction materials
10. Water conservation
11. Green spaces

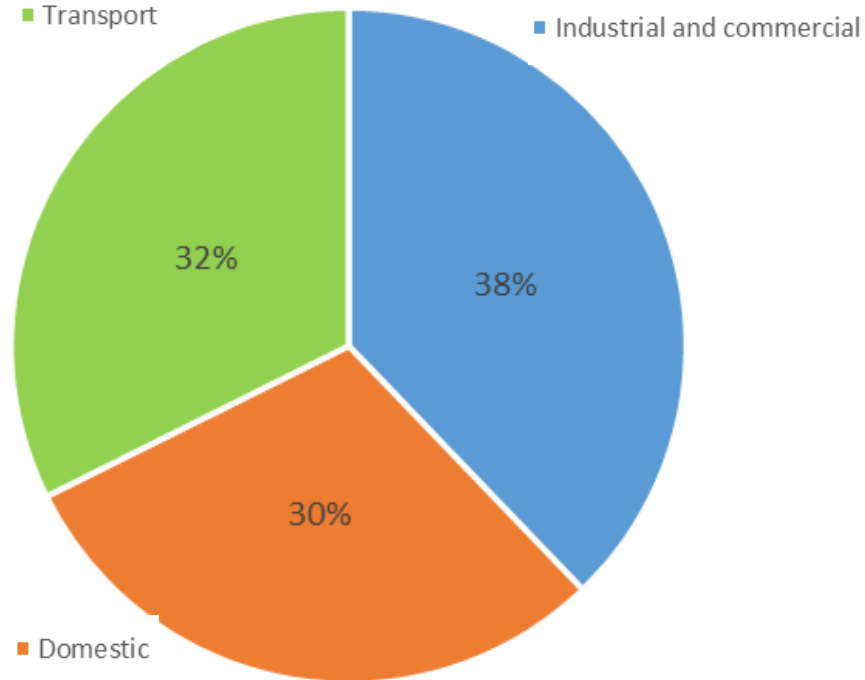
AVIATION EMISSIONS

12. Level off to 2030, zero by 2075

INSPIRING & INFLUENCING OTHERS

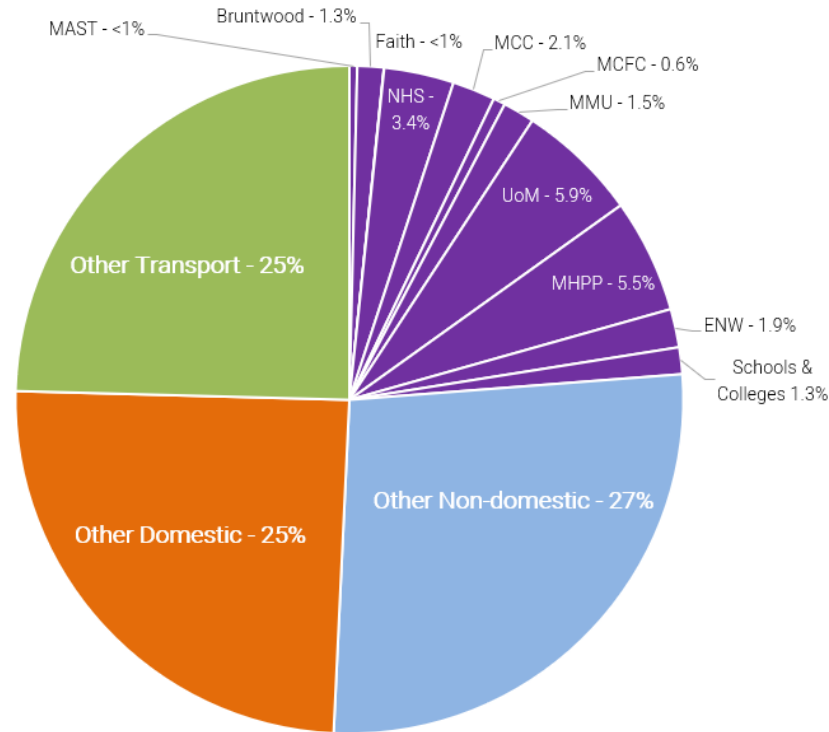
13. Talk to politicians & decision-makers about removing barriers
14. Where you invest & save your money
15. Spread the word

Manchester Climate Change Partnership



Manchester Climate Change Partnership

1. Arts & culture
2. Bruntwood (property)
3. Faith
4. Health
5. City Council
6. Manchester City Football Club
7. Manchester Met University
8. University of Manchester
9. Mcr Housing Providers
10. Electricity Northwest
11. Schools & colleges



Where Next?

1. Expanding MCCP
2. Integrating climate change in local strategies & policies
3. Framework 2020-25 Version 2.0
4. Sharing with other cities

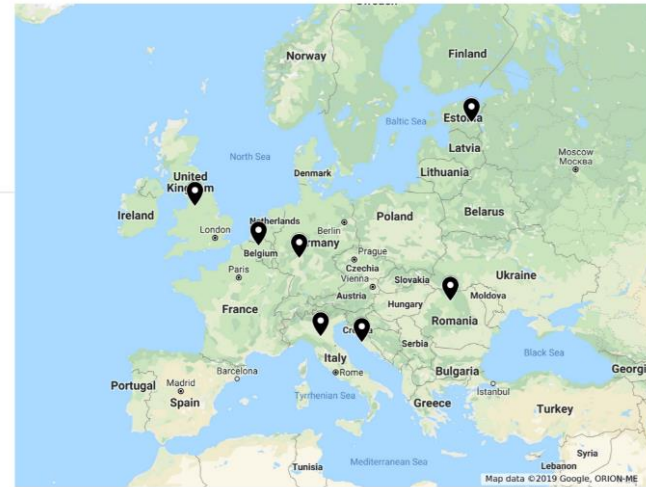


MANCHESTER
CITY COUNCIL



Seven Cities

- Manchester
- Tartu
- Frankfurt
- Vilvoorde
- Zadar
- Modena
- Bistrița



Thank You and Further Information

Manchester Climate Change Framework 2020-25

www.manchesterclimate.com/framework-2020-25

Sign the Commitment to Act

www.manchesterclimate.com/sign-our-commitment-to-act

15 Actions

www.manchesterclimate.com/15-actions

Contact

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[@jonnysadler](https://twitter.com/jonnysadler)



Questions

Thank you!