

# MANCHESTER CLIMATE CHANGE FRAMEWORK: 2022 UPDATE

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MANCHESTER  
CLIMATE CHANGE  
AGENCY



**ZERO CARBON  
MANCHESTER**

# Manchester's zero carbon history

- First climate change strategy - Manchester: A Certain Future (2010-2020)
- 41% reduction in direct emissions over that decade... Annual reports began in 2013
- Manchester Climate Change Agency created in 2015
- Our Manchester Strategy 2016 “will play its full part in limiting impacts... on a pathway to zero carbon”
- Manchester Climate Change Partnership formed in 2018
- Climate Emergency declaration made in 2019
- Climate Change Framework 2020-25:
  - science based targets, a carbon budget and 2038 at latest

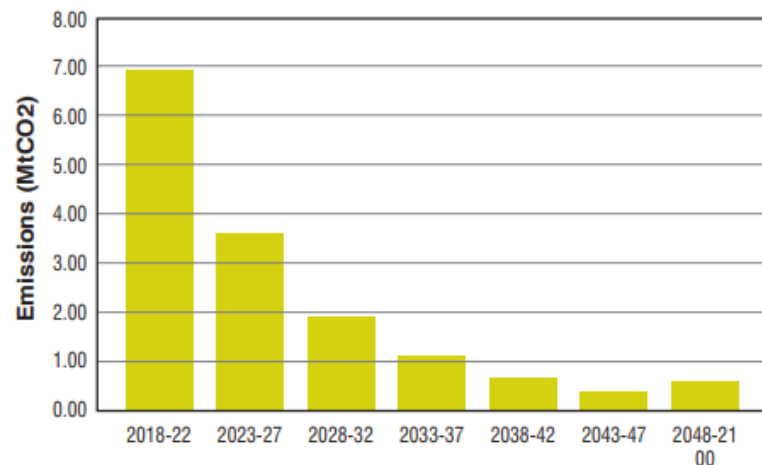
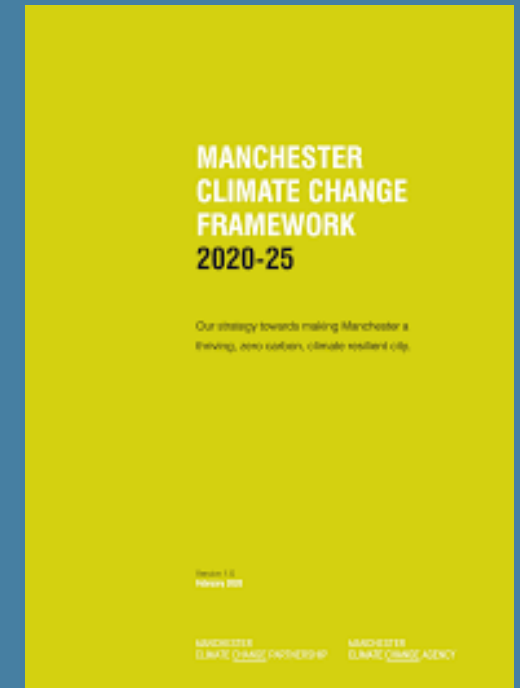


Figure 4: Emissions projections consistent with the 15 MtCO<sub>2</sub> budget – starting from common year (2017)

Time Period	CO <sub>2</sub> budget (MtCO <sub>2</sub> )
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
<b>Total</b>	<b>15.17</b>

Table 2: Manchester's 15 MtCO<sub>2</sub> budget by time period

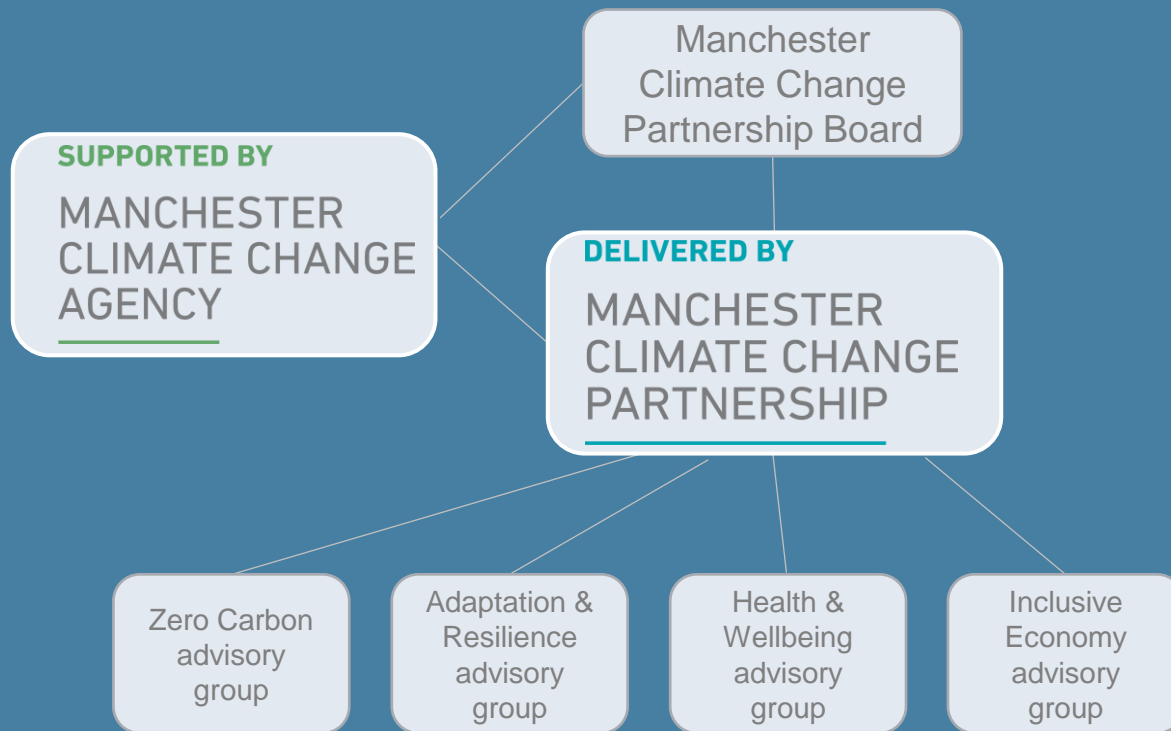


# Governance

Manchester's Climate Change Framework is the city's high level strategy for addressing the climate emergency.

It is produced by Manchester's Climate Change Agency on behalf of Manchester's Climate Change Partnership.

It is a collaborative approach as responsibility is collectively owned.



## MANCHESTER CLIMATE CHANGE PARTNERSHIP

Partnership members represent key organisations and sectors from across the city:

Chair: Mike Wilton, Arup

- Manchester City Council: Councillor Tracey Rawlins, Executive Member for Environment and Carol Culley, Deputy Chief Executive and City Treasurer
- Bruntwood
- Deloitte
- Electricity North West
- Manchester Airport Group
- Manchester Arts Sustainability Team (Arts and Culture sector)
- Manchester City Football Club
- Manchester Climate Change Youth Board
- Manchester Health and Wellbeing Board
- Manchester Housing Providers Partnership
- Manchester Metropolitan University
- University of Manchester
- Media sector
- Our Faith Our Planet (faith sector)
- THG
- Wates Group
- Manchester Friends of the Earth
- Carbon Literacy Trust

# Individual plans deliver the Framework

## Manchester Climate Change Framework

MCC Climate  
Change Action  
plan

NHS Green  
Plan

MHPP Action  
Plan

MMU Our  
route to zero  
carbon

MCFC  
Sustainability  
Game Plan

Bruntwood  
Sustainability

Wates 5 year  
Plan

Our Faith, Our  
Planet

UoM Carbon  
Management  
Plan

Manchester  
Airport Group  
CSR Strategy

# Benefits and structure of the Framework

## Benefits:

- Formalises Manchester's ambition to reach zero carbon
- Puts the city ahead of the national target (2038 vs 2050)
- Gives credibility through using science-based targets and carbon budget
- Enables progress reporting - 'holding the city to account'

## Four headline objectives:

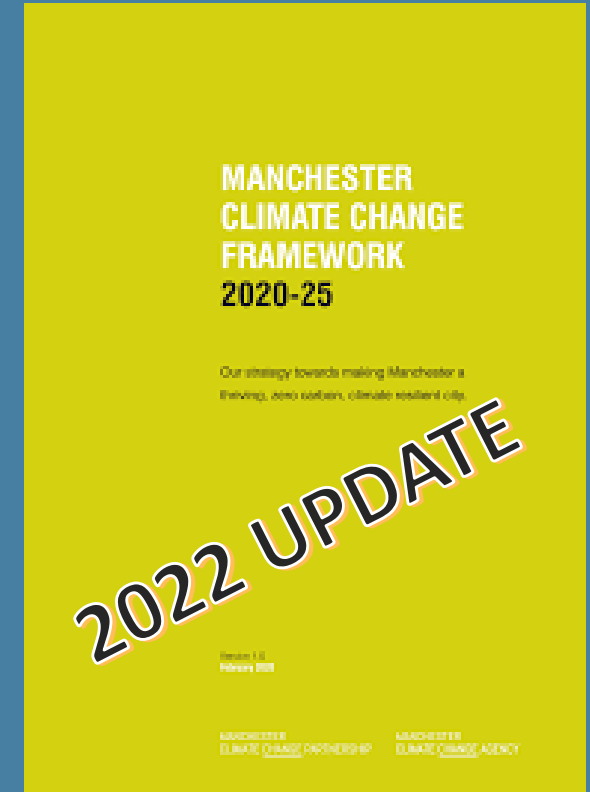
- Staying within our carbon budget
- Adaptation and resilience
- Health and wellbeing
- Inclusive, zero carbon, climate resilient economy

## Six priority areas of action:

- Buildings
- Transport
- Renewable Energy
- Things we buy and throw away
- Food
- Green Infrastructure and Nature Based Solutions

# Purpose of the 2022 Update

- Basic commitment to keep the Framework up to date
- Research and initiatives that have been delivered since publication
  - Adaption and Resilience
  - Health and Wellbeing
  - Inclusive Economy
- The city is not reducing emissions at the intended 13% pa rate
- There is a risk that we do not remain within our carbon budget
  - Detailed modelling
  - Identify scale of action to reduce our direct emissions by 50%
  - Granular targets
  - Specific recommended actions
- Illustrate a series of scenarios for the city – different pathways of emissions reductions – to stay within the carbon budget



# STAYING WITHIN OUR CARBON BUDGET



# Modelling of direct emissions reduction pathway

## SCATTER

- ‘Setting City Area Targets and Trajectories for Emissions Reduction’
- Developed to help Local Authorities measure and model area-wide carbon emissions
- Sets a baseline carbon inventory
- Models pathways to meet emission reduction targets
- Primarily focused on direct emissions, with some detail on indirect
- Provides an evidence base and the scale of action needed across multiple sectors: buildings, energy, transport
- What needs to be done to deliver a 50% reduction



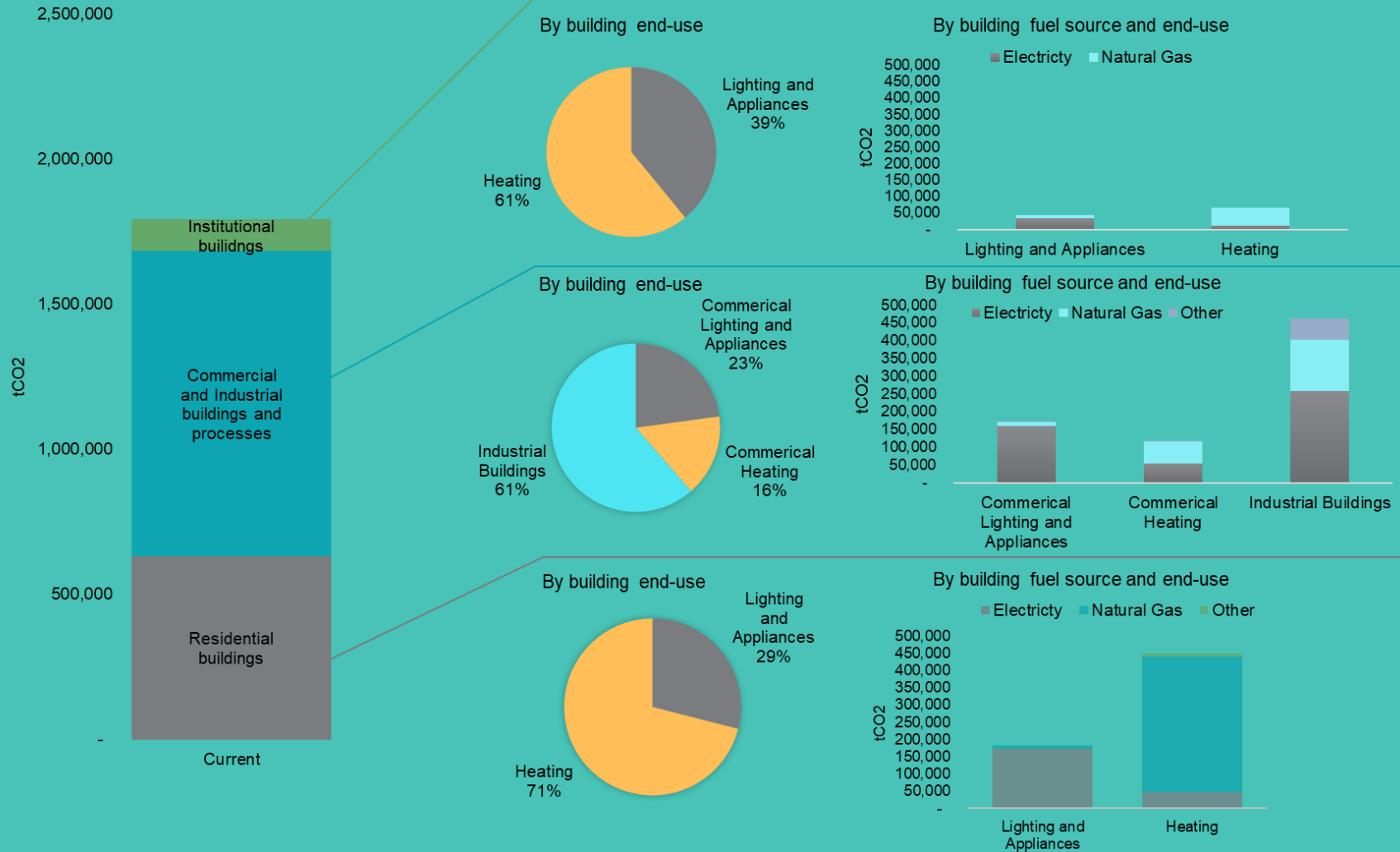
- S** Setting
- C** City
- A** Area
- T** Targets and
- T** Trajectories for
- E** Emissions
- R** Reduction

<https://scattercities.com>

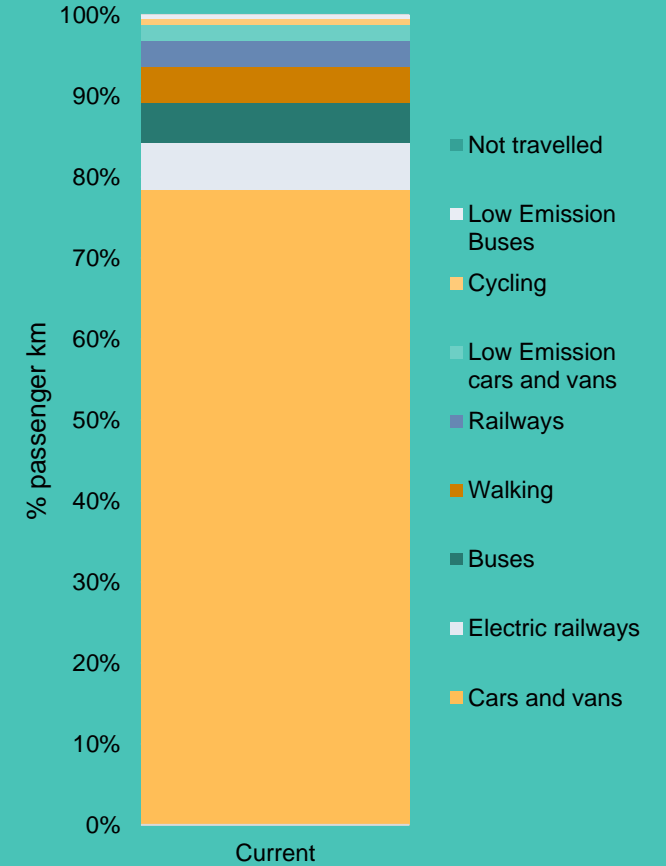


# Current direct emissions profile

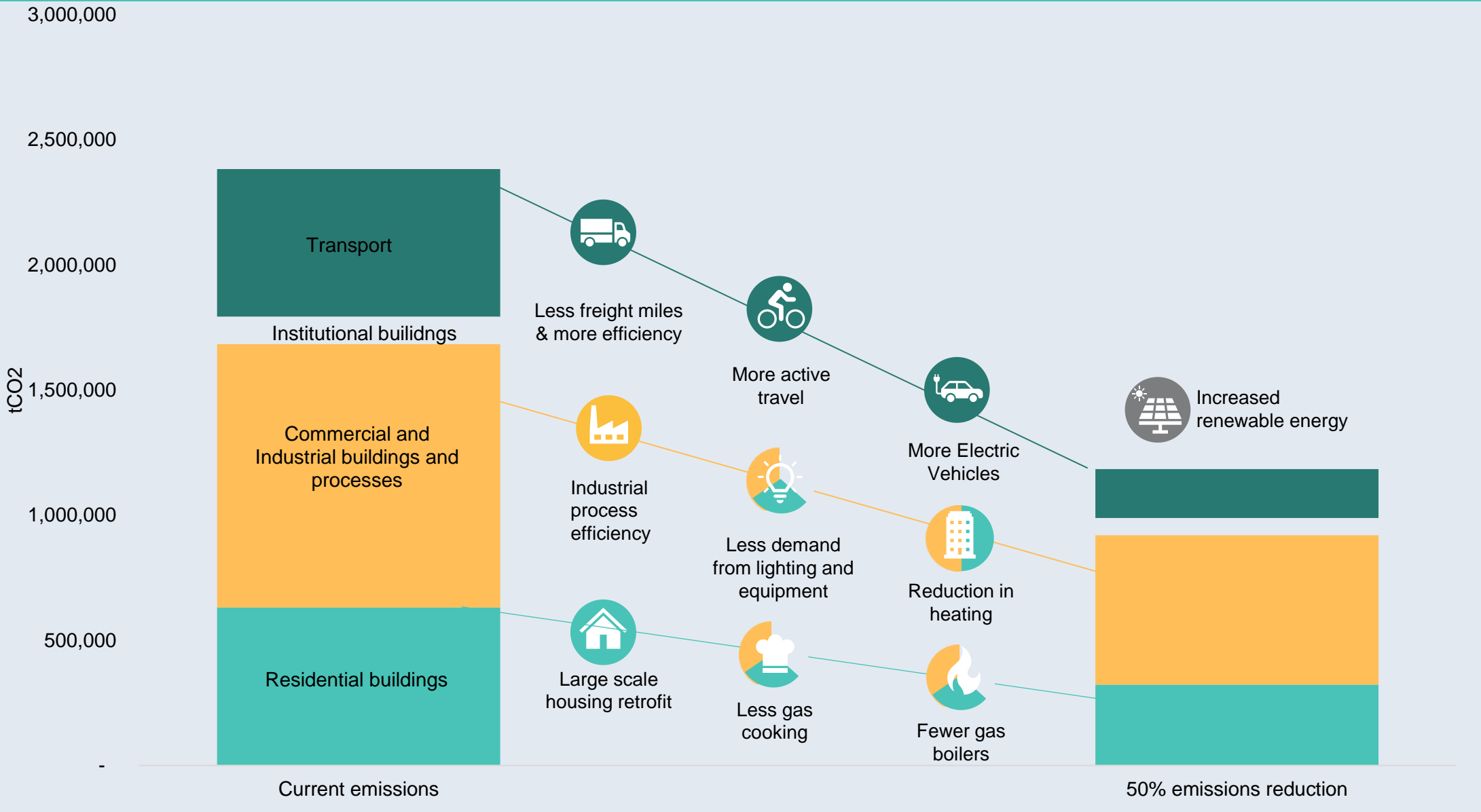
## BUILDINGS



## TRANSPORT



# Scale of action to reduce direct emissions profile



# Scale of Action needed- granular targets

## BUILDINGS:

- No of homes to be retrofit
- % of homes to switch off gas to electric heating
- % demand reduction for domestic lighting/appliances
- % demand reduction for commercial, institutional and industrial buildings
- Level of new builds required to meet high energy efficiency standards

## TRANSPORT:

- Level of journeys to be avoided
- Modal shift out of cars
- % of journeys by active travel, walking or cycling
- % of journeys by public transport, bus, train or tram
- Switch to EV from ICE
- % reduction in road freight miles
- % improvement in freight fuel efficiency

## ENERGY:

- Level of renewable energy generation needed
- Locally (micro) and larger scale (outside area)
- Solar and Wind

## AND:

- CO2 savings
- Capital cost
- Operational savings
- Potential funding streams
- Challenges
- Co-benefits
- Context

# Where is there agency for action

Big targets can disengage and disempower

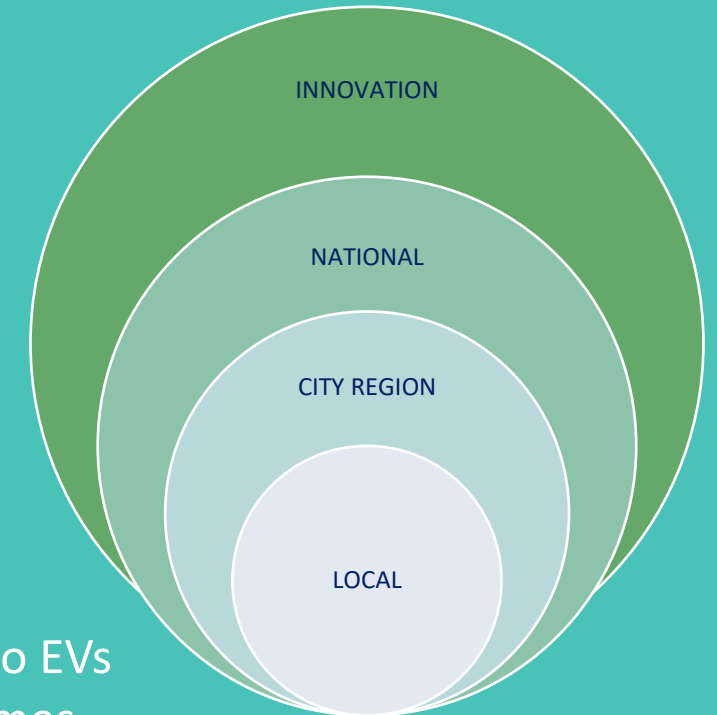
Different actions need to be taken at different levels and by different people

We have identified four categories:

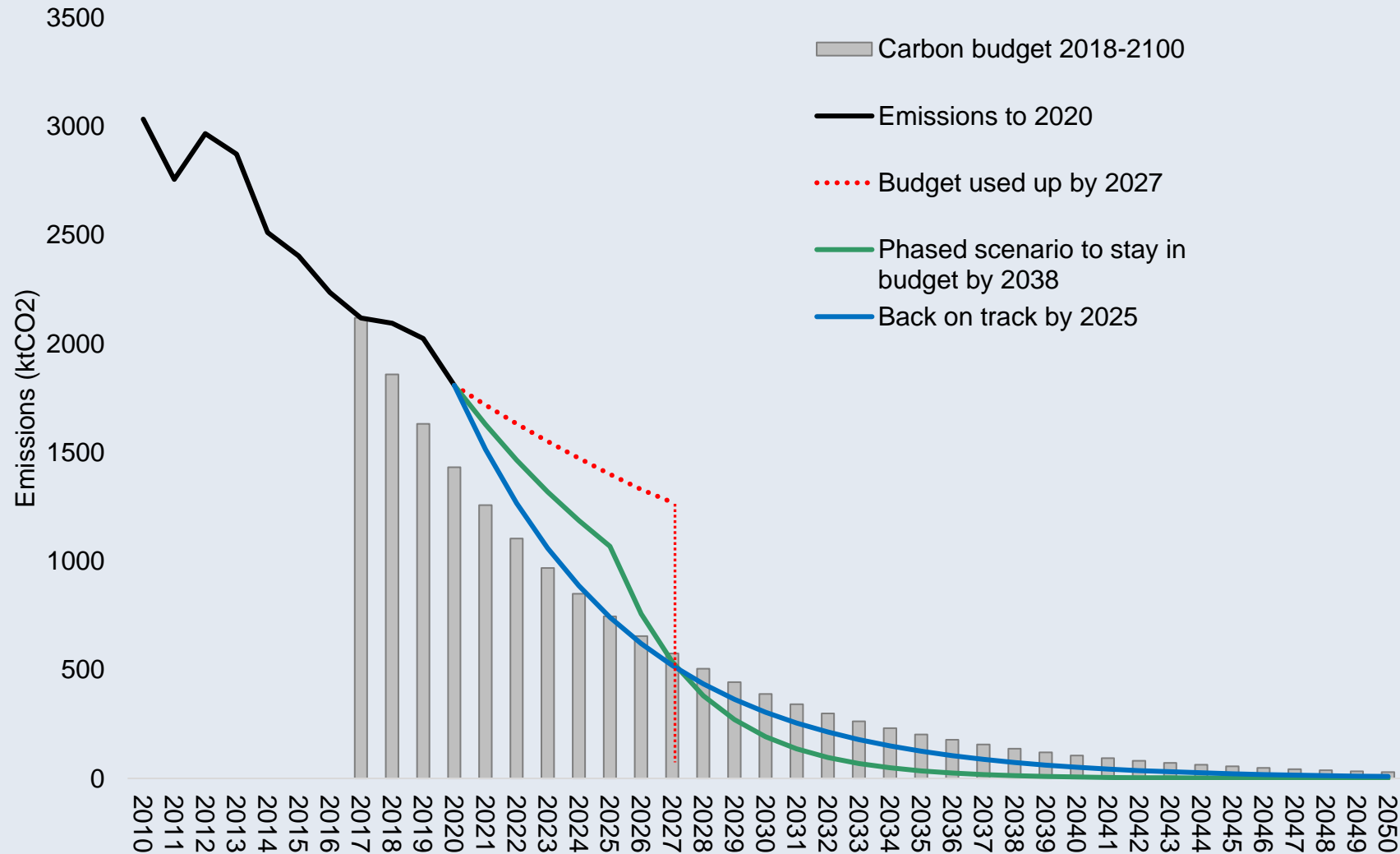
- What can we do **locally**?
- What should we tackle at **city region** level?
- What do we advocate **national** entities to do?
- What should we do differently, where can we **innovate**?

Actions are being **co-designed** with relevant stakeholders

- Local companies can incentivise sustainable commuting or switch fleet to EVs
- Local authorities can work together on a GM Retrofit Accelerator for homes
- We can encourage national government to modernise energy markets
- We can develop new business models to attract private finance into net zero delivery



# Scenarios to stay within our carbon budget



- The Framework sets a pathway to zero carbon that requires we reduce direct emissions by 13% per annum
- The city has not achieved this rate to date
- The impact of this is that the level of annual reductions increases to balance early underperformance

# ADAPTATION & RESILIENCE



# Updates include MCCA work with:

## Manchester Metropolitan University to produce:

- Manchester's climate risk: a **framework for understanding hazards & vulnerability** . This provides organisations with a method for assessing exposure to climate risk.
- **Principles of progressive resilience** . To help the city's businesses and residents to act on climate adaptation.
- **Manchester Climate Ready (MCR) website** . Providing examples of adaption action from members of the Manchester Climate Change Partnership.

## The Met Office on:

- **A City Pack** to forecast climate projections at local level and to highlight the importance of addressing climate risk.
- **A heat mapping tool** to give the city a better understanding of its exposure and vulnerability to heat over time.

## The University of Exeter:

- **a Local Climate Adaptation Tool (LCAT)** that is intended to recommend adaptation action that will support health and wellbeing.

## Greater Manchester Combined Authority:

- The **IGNITION** project's green infrastructure baseline for the city .

# HEALTH & WELLBEING





# Updates include MCCA work with:

## Manchester Marmot Taskforce:

- To incorporate **how climate change impacts on health and wellbeing** into the development of the Manchester Marmot Action Plan

## Health and Wellbeing Advisory Group:

- To develop a **set of indicators** to track the health impacts of climate change and the effectiveness of improvements we make in the city

UK's Climate Change Committee published 'Sustainable Health Equity: Achieving Net Zero UK'

Greater Manchester  
'Build Back Fairer'

### Two influential reports:

Summarised that climate change will affect health and wellbeing

- Affects will be cumulative, becoming more severe and unpredictable over time if left unaddressed
- Impacting our most vulnerable communities first and worst
- Climate change will impact people both **directly and indirectly**

# INCLUSIVE, ZERO CARBON AND CLIMATE RESILIENT ECONOMY



# Updates include MCCA work with:

## Manchester Climate Change Partnership

- To **assess the impact** of Partnership members in delivering the Framework targets
- To **accelerate decarbonisation** of member organisations through sharing best practice
- To **leverage expertise** and capacity to develop collaborative solutions to city scale challenges

## City Business Climate Alliance

- To capture and learn from **best practice in other global cities** with similar challenges
- To support Partnership members to adopt a **science-based targets** approach to climate change

## Business support organisations in Greater Manchester

- To make it easy for businesses in Manchester to **green their operations and diversify into the low carbon sector**
- To create and launch the **Bee Net Zero** website, signposting DIY resources and funded support for climate action

## KEY MESSAGES

- Urgent action is needed to **reduce direct emissions** from our buildings and ground transport, and to increase renewable energy generation, if Manchester is to stay within its carbon budget.
- Decisive action is needed to assess the city's vulnerability to climate change and to ensure we are adapting our infrastructure, buildings, economy, and residents to **be resilient to a changing climate**.
- Everyone has a role to play – individuals, organisations, local and national government – and there is a great deal we have the power to achieve locally, if we **work collaboratively**.
- The cost of transitioning to zero carbon cannot be borne solely by the public purse, so we need to find innovative ways to **unlock private finance investment**.
- Moving to a low carbon and climate resilient city brings opportunities to **deliver wider strategic ambitions**, including improving people's health, reducing fuel and food poverty, creating new jobs and economic growth, and delivering a greener city for everyone.



# ENGAGEMENT WITH STAKEHOLDERS



# Understanding activity levels and barriers, plus ensuring recommended actions are co-designed



## RESIDENTS

In Our Nature

Community Consultation

Mapping issues and opportunities in six communities

Community Sounding Boards

Polling

Climate Assembly

Focus on levels and type of existing climate actions being taken and barriers to further action



## BUSINESSES

GM business support organisations

Workshops with large companies

In Our Nature community consultations



## WIDER ENGAGEMENT

Manchester Climate Change Youth Board

Manchester Housing Providers Partnership

Manchester Strategic Housing Board

Manchester Health and Wellbeing Board

Manchester's Marmot Taskforce

Manchester Food Board

Manchester Zero Carbon Skills Group

Manchester City Council: multiple theme leads and decision makers, including Zero Carbon Coordination Group

Transport for Greater Manchester (TfGM)

Greater Manchester Combined Authority (GMCA) Environment Team

Electricity North West Ltd

UK Core Cities Low Carbon Group

City Business Climate Alliance partners: C40, CDP, WBCSD



# NEXT STEPS



# From publication to action

- JULY
  - Review and comment by stakeholders
  - Awareness campaign on social media to residents and business
  - Survey to assess buy-in to co-benefits and to nudge no-cost action
- AUGUST
  - Finalise content and document design
  - Circulate to MCCP members
- SEPTEMBER
  - Endorsement from MCCP members / Partnership as a whole
  - Publication
- ONGOING
  - Everyone has a role to play in helping the city to become zero carbon and resilient to climate change
  - This Update presents a plan for how we can achieve this together, with recommended actions for all
  - MCCA to track and report progress in more granular detail
  - Supplementing Annual Reports & BEIS CO2 emissions data, holding the city to account





THANK YOU

