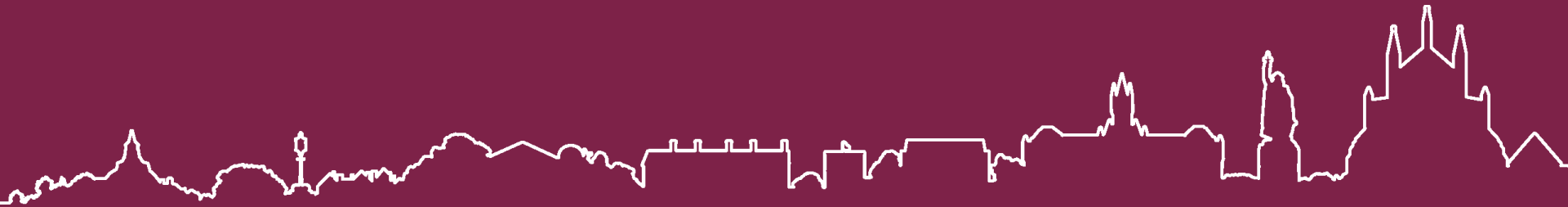


# Health & Environment Committee

## Update on Carbon Neutrality Roadmap



6<sup>th</sup> December 2022

# UPDATE ON CARBON NEUTRALITY ROADMAP







 Context

 Outputs

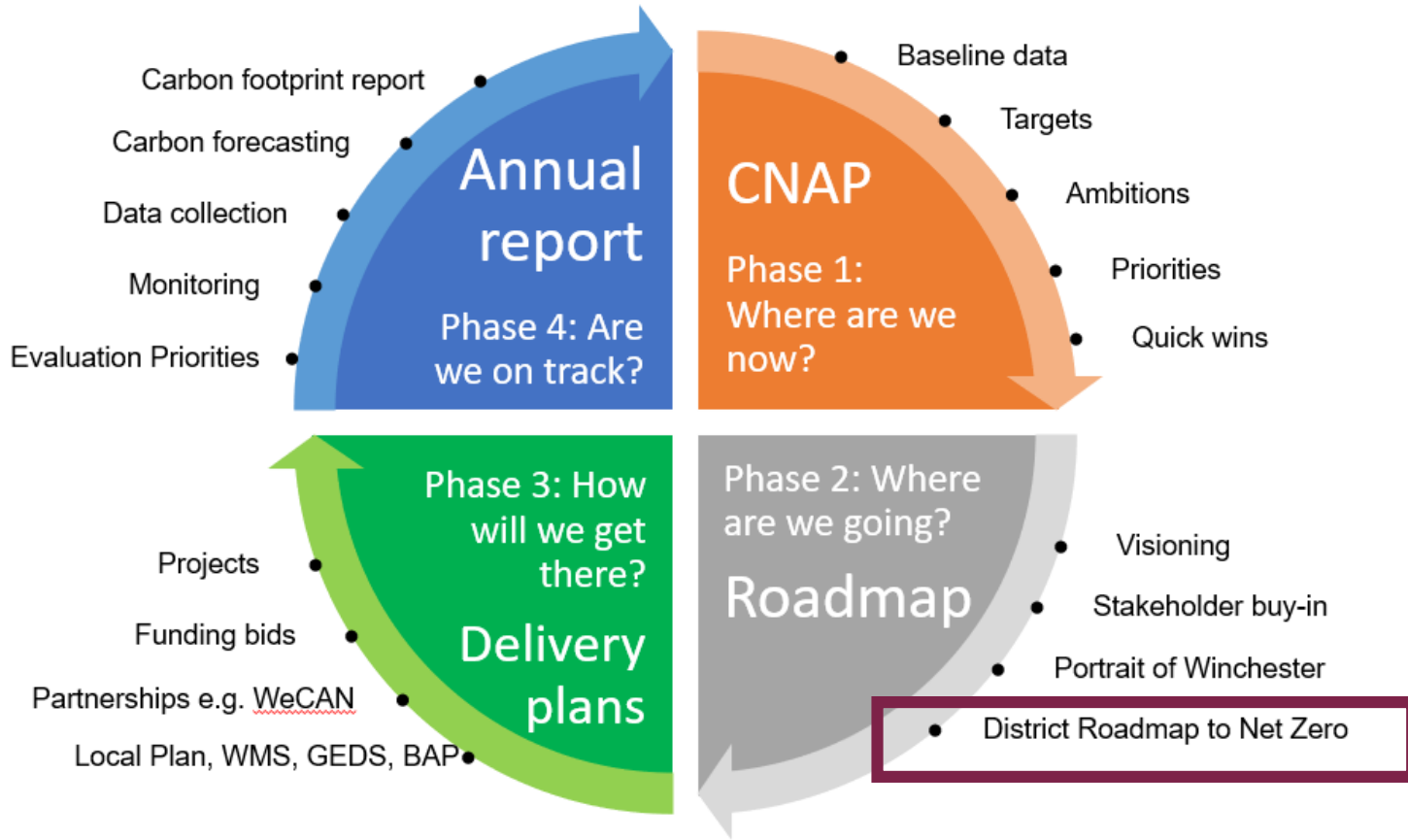
 Key Findings

 Next Steps

# CONTEXT

-  The council published a Carbon Neutrality Action Plan 2020-2030 (CNAP) in January 2020, quantifying the scope of the carbon emissions for the council and the district.
-  The CNAP acknowledges that to meet the ambition of being a carbon neutral district by 2030, all sectors and responsible parties will have to make significant reductions in emissions.
-  A number of interventions were identified in the CNAP under three themes : transport, commercial energy and domestic energy. These are high level and were not been quantified in terms of carbon impact, cost, timing of delivery etc.
-  This had two effects:
  -  It did not provide the details required to enable prioritisation of actions;
  -  It does not provide sufficient detail on how and what needs to be done across the district to achieve carbon neutrality, and by whom.

# CNAP PROCESS



# DISTRICT CARBON NEUTRALITY ROADMAP

## Objectives

Create a roadmap for Winchester District to become carbon neutral by 2030

Identify interventions and quantify impacts

Create a roadmap tool that can be updated to give timely information on delivery progress

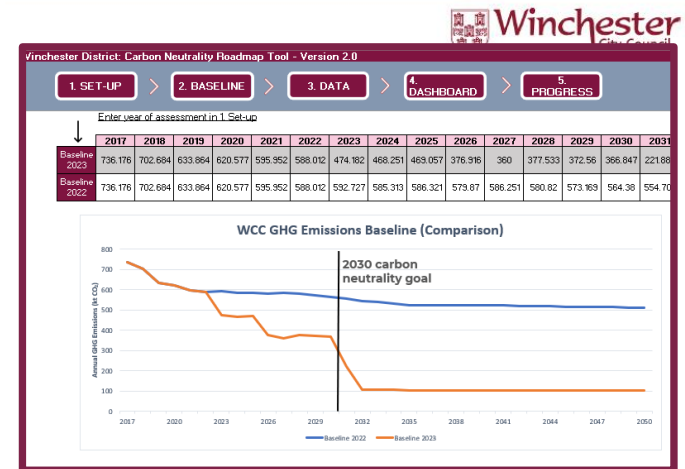


# PROJECT OUTPUTS

 Carbon Neutrality Roadmap (with detailed appendices)

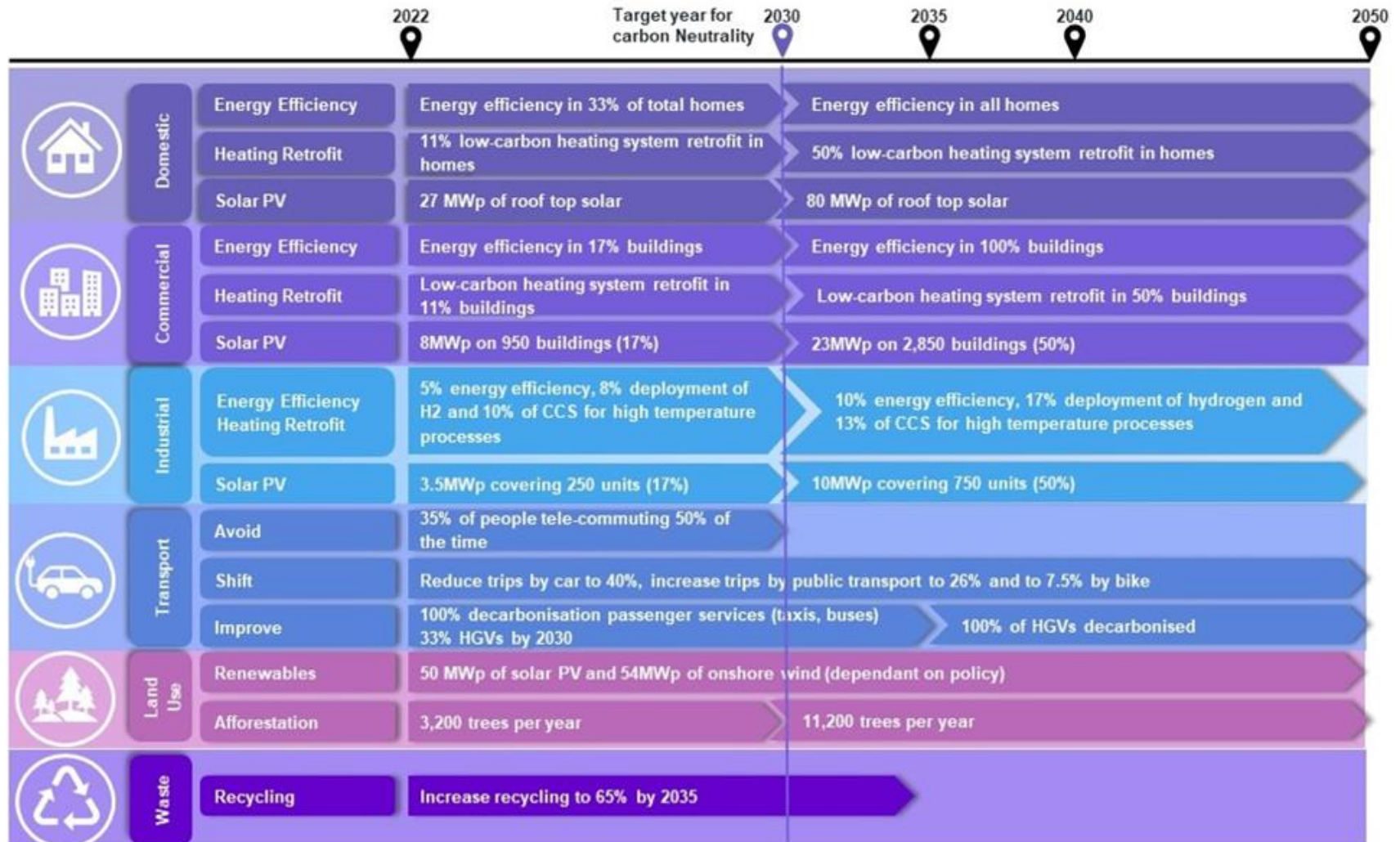
 Executive Summary (Public Facing Roadmap)

 Carbon Neutrality Modelling Tool





# KEY FINDINGS



# KEY FINDINGS

Of these 16 intervention WSP advise that three have the greatest potential to reduce emissions of the 1,116 kt CO<sub>2</sub>e identified:

Intervention	Quantum	Carbon reduction cumulative by 2030	Share of cumulative reduction
<b>Generating 50 MW of utility scale solar PV</b>	This would generate the average energy demand of 3,100 UK households	147 kt CO <sub>2</sub> e	13%
<b>Electric vehicle (EV) charging to decarbonise private cars</b>	Infrastructure sufficient to support 11,400 EVs (16% of all vehicles).	600 kt CO <sub>2</sub> e	53%
<b>Renewable heating measures in homes</b>	Renewable heating and hot water systems in 5,940 homes (33% of domestic dwellings).	68 kt CO <sub>2</sub> e	6%
<b>Totals</b>		<b>812 kt CO<sub>2</sub>e</b>	<b>73%</b>





# Progress to date

April 2020 to March 2022



cut **468 tonnes**  
from our carbon footprint  
2019/2020



recycled **5,500**  
tonnes of  
garden waste



created **17**  
wildflower areas ,  
each has introduced **25**  
native species



reduced our co<sup>2</sup> emissions  
by **19%** by switching to  
green electricity



installed more than  
**40** new electric vehicle  
charging points in  
public car parks



introduced kerbside glass,  
battery and small electrical  
items collections



invested **£15m**  
to cut co<sup>2</sup> in  
council housing



planted **1,224**  
trees



increased glass collection by  
**100 tonnes** each month  
across the district



installed **849m<sup>2</sup>**  
of solar panels at  
Winchester Sport &  
Leisure Park



adopted a Biodiversity  
Action Plan



Winchester City Council sat  
on COP26 panel to share how  
we trained **126** staff and  
received the BRONZE Carbon  
Literate Organisation award



received a BREEAM **excellent**  
rating at our new  
leisure centre





achieved **80%**  
of all actions  
in Year 1

# INTERVENTIONS: DOMESTIC

## Description of Scenarios levels for Roadmap Interventions

Sector	Intervention	Details of intervention per scenario			
		Low	Medium	High	Very High
Domestic	1. Installation of energy efficiency measures within domestic dwellings	Third of all homes have all feasible measures (which are not already installed) installed by 2030			All homes have all feasible measures (which are not already installed) installed by 2030
	2. Install renewable heating measures to provide heating and hot water within domestic dwellings	7% of homes have renewable heating installed by 2030	11% of homes have renewable heating installed by 2030	50% of homes have renewable heating installed by 2030	60% of homes have renewable heating installed by 2030
	3. Install solar PV microgeneration (primary or rooftop solar) within domestic dwellings	17% of all homes have solar PV by 2030			50% of all homes have solar PV by 2030

# INTERVENTIONS: DOMESTIC

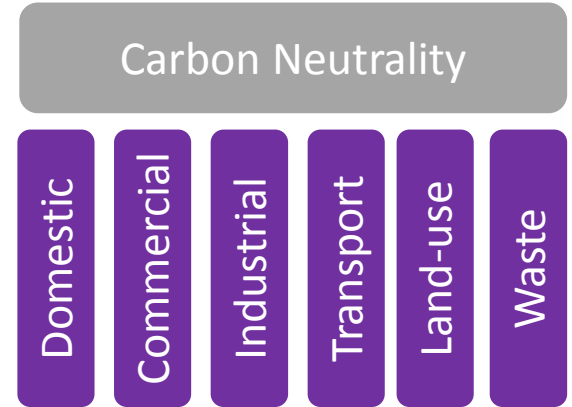
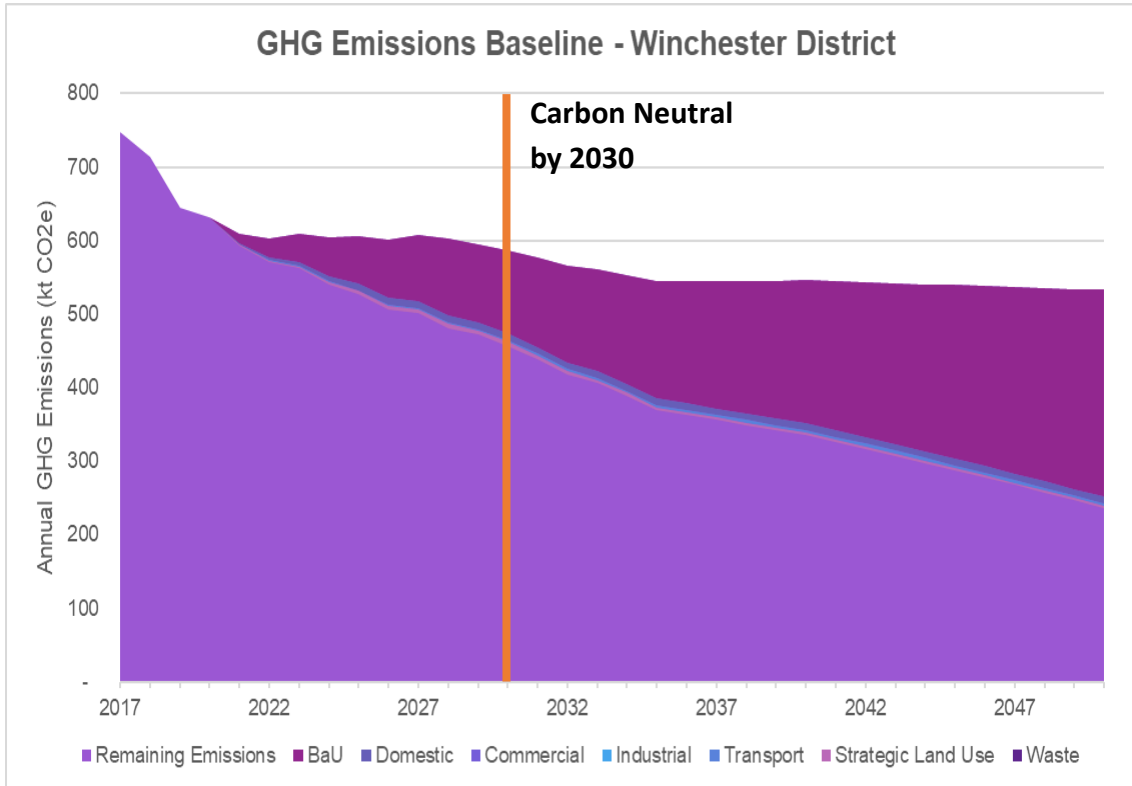
 <b>Intervention 1: Installation of energy efficiency measures (EEMs) within domestic dwellings</b>	
<b>What?</b> This intervention aims to reduce carbon emissions through increased energy efficiency in the use of energy in domestic dwellings (smart meters, smart thermostats, cavity and solid wall insulation, loft insulation, double glazing in addition to household behavioural change).	<b>Co-benefits:</b> <ul style="list-style-type: none"> <li>Improved health and quality of life (reduced air pollution)</li> <li>Reduced energy bills and lower costs</li> <li>Reduced inequality (fuel poverty) and improve energy security</li> <li>Reduced demand for fossil fuels</li> </ul>
<b>Carbon savings (2030):</b> 26 ktCO <sub>2</sub>	<b>SDGs:</b> 
<b>Cost (2030):</b> Estimated capex £30-50m	
<b>How?</b> <ul style="list-style-type: none"> <li>Evaluate a 'building passport' approach for 2030 to demonstrate how and when a zero carbon-compatible level of retrofit will be achieved by new developments in the district.</li> <li>Develop a local incentives plan for the installation of specific measures, (where not already present), including smart meters, smart thermostats, cavity and solid wall insulation, double glazing and loft insulation.</li> </ul>	<b>Lead:</b> Winchester City Council (Corporate Head of Housing) Landlords Property owners <b>Partners:</b> Hampshire County Council, Housing associations, local authority housing, homeowners and private landlords, supply chain

Example of Roadmap Intervention, which presents:

- Measures proposed
- Carbon Savings
- Estimated cost
- Pathways to implementation
- Co-benefits
- Alignment with SDGs
- Lead body responsible
- Timeline

# CLIMATE NEUTRALITY ACTION PLAN

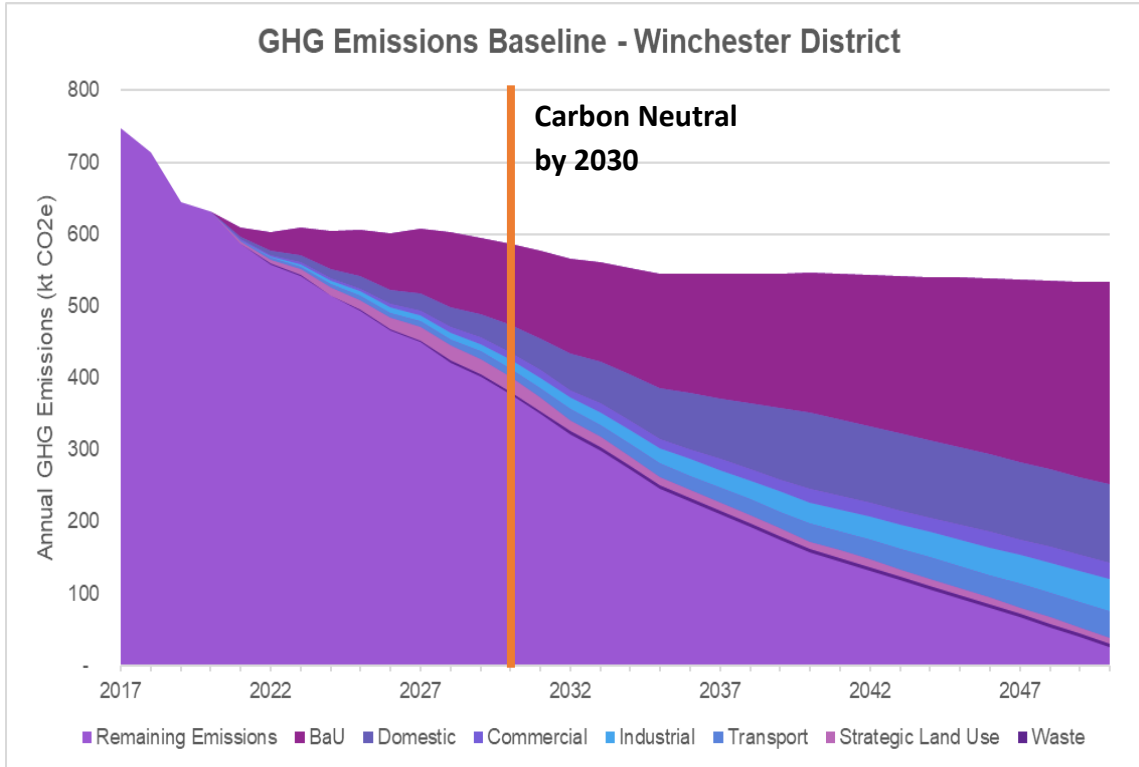
## Assessment of impact of existing actions



- The CNAP actions modelled represent 7.5 KtCO<sub>2</sub> avoided by 2030. These are not sufficient to reduce emissions by 2030 to carbon neutral and so WSP has modelled a further 16 interventions.

# ADDITIONAL INTERVENTIONS

## Assessment of impact of additional actions



## Carbon Neutrality

Domestic

Commercial

Industrial

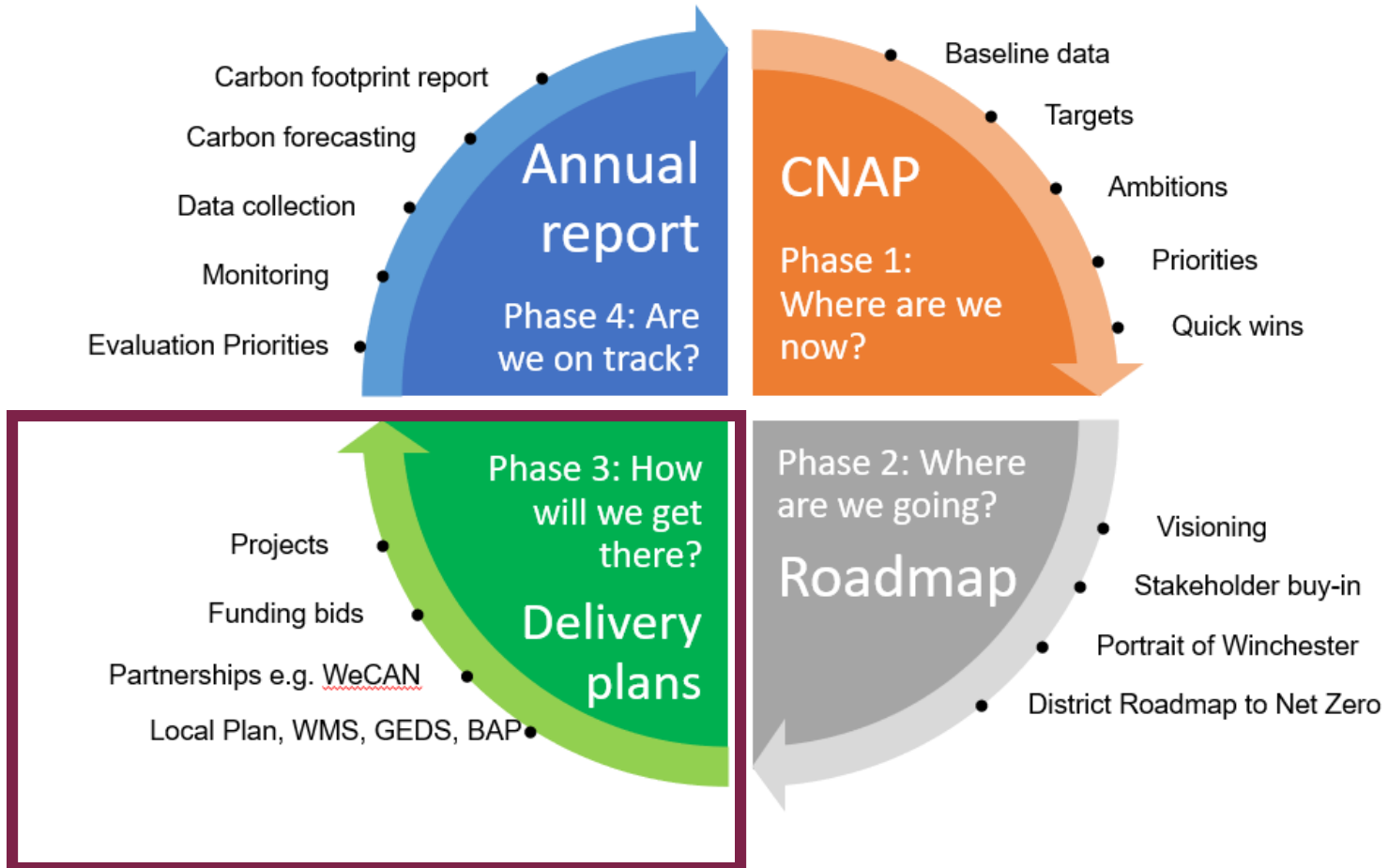
Transport

Land-use

Waste

- WSP modelling (at a medium level of effort scenario) suggests that if the interventions put forward are implemented by 2030, the district will have residual annual carbon emissions of 377 KtCO<sub>2</sub>.

# CNAP PROCESS



**Carbon Neutrality Roadmap**  
commissioned to provide us  
with **expert advice.**

**Review of recommendations** to  
understand cost, responsibility for  
implementation, carbon impact etc

**Consultation** with internal and  
external colleagues and  
stakeholders

**Identification** of strategic policies  
and **quantification** of funding  
and staff resource for delivery

**Revision of CNAP** and other  
relevant policies








Summer  
2022

Summer  
2023

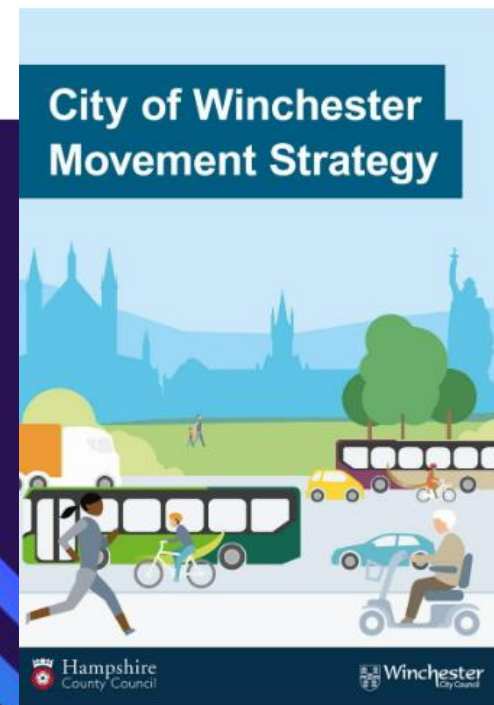
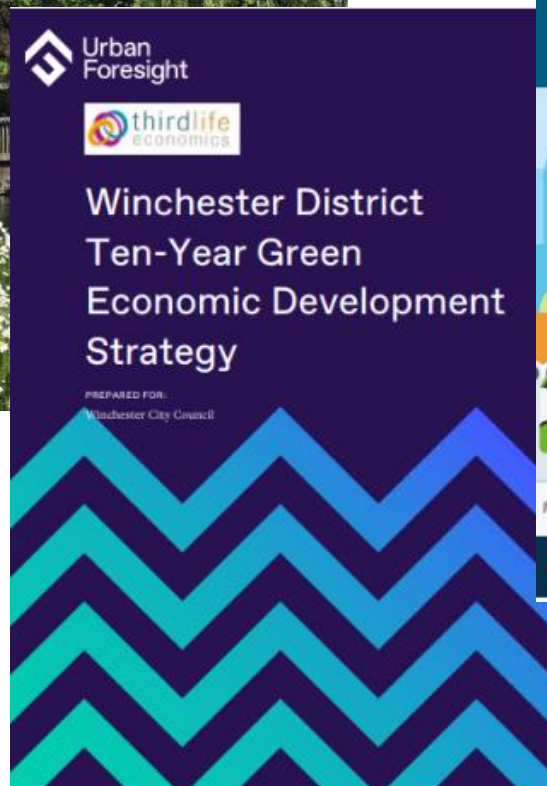


# NEXT STEPS

The council will now evaluate the advice and recommendations in particular to:

-  Devise a programme for the creation or review of appropriate policies and implementation plans to facilitate delivery, for example off-setting, renewable energy generation.
-  Align interventions with delivery of the Carbon Neutrality Action Plan and present a revised Action Plan for 2023 and 2024 and up to 2030
-  Develop the funding strategy required to deliver the interventions and actions identified following the proposed analysis of the recommendations.
-  Briefings and engagement with partners and stakeholders
  -  A members briefing will be arranged
  -  Stakeholders briefing through a Carbon Neutrality Open Forum (Greener Faster) Forum
  -  Members Decision Day in January to adopt the Carbon Neutrality Roadmap as the evidence base from which to develop future strategy.

# ALIGN STRATEGIC PRIORITIES



Thank you – any questions?

