

BRISTOL

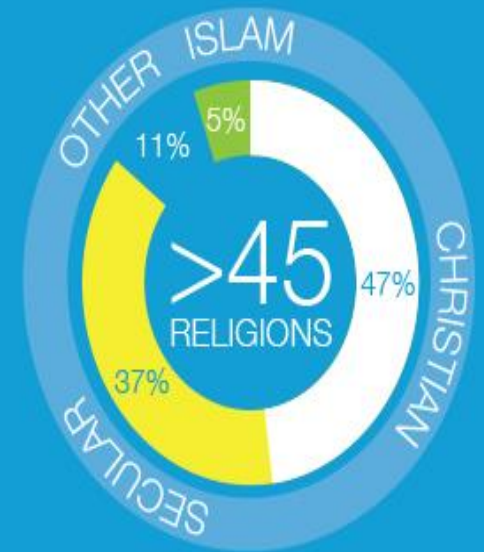
Bristol's Climate Change Journey

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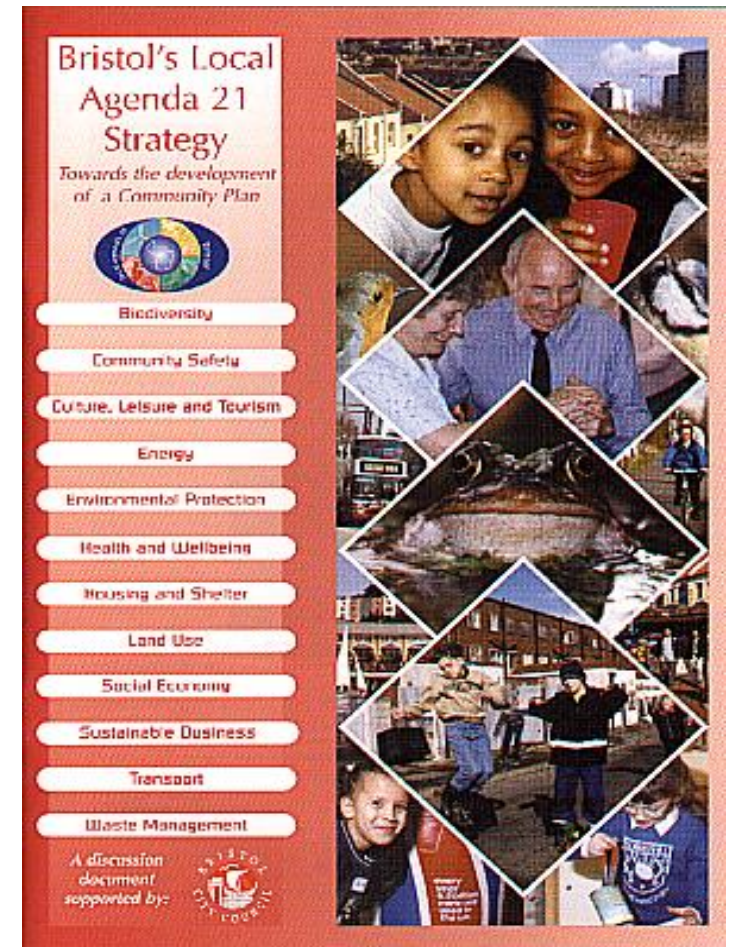






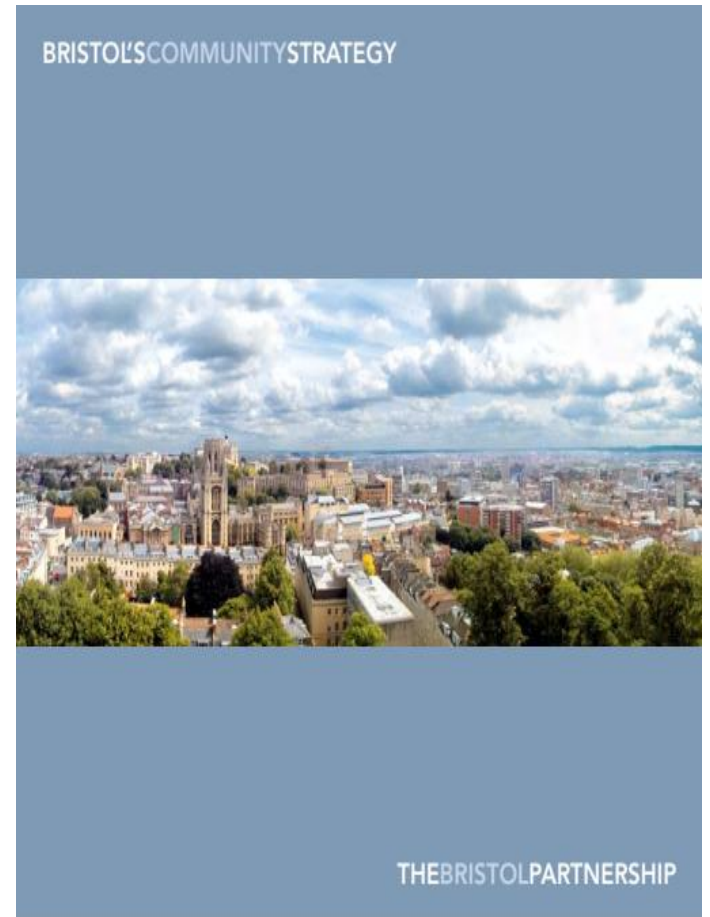
2000 - Local Agenda 21

- Set out our initial aim to address climate change
- Wide range of community participation



2003 - Community Strategy

- Creating a low carbon city became a shared city objective
- Set our ambition to be a green capital in Europe



2004 - Climate and Energy Strategy

- Adopted target to reduce CO₂ emissions by 60%
- But we did not have good city data on CO₂ emissions
- Initial focus on emissions from the City Council's operations
 - Purchase of Electricity from Renewable sources
 - A municipal energy investment fund
 - Biomass from parks and open spaces
 - Developing our own wind turbines
- Environmental Management System
 - ISO14001 and EMAS



2007 - Mobilising the City

- Bristol Green Capital Partnership founded
- Bringing together existing organisations from public, private and community sectors
- Focus on creating “A low carbon city with a High Quality of Life”
- Began with 10 members, rapidly grew to over 100



2008 UK Climate Change Law

- Bristol City Council campaigned for the law
- We adopted a target of 40% reduction 2005-2020
- Created the national context and some good policies
- But no local responsibilities



European Green Capital Award

- 2008 European Commission launches European Green Capital Award
- Bristol applies!
- We are shortlisted!
- We are surprised!
- We are encouraged!
- We focus on greening the city not winning the award, but we try again, twice!
- We are honoured with the Award for 2015



BRISTOL

2015 EUROPEAN
GREEN CAPITAL

In it for good™

Our Vision for 2015 +

To become a global leader in
sustainable urban living



Local
empowerment

Sustainability
leadership

International
reach



Some simple themes



NATURE



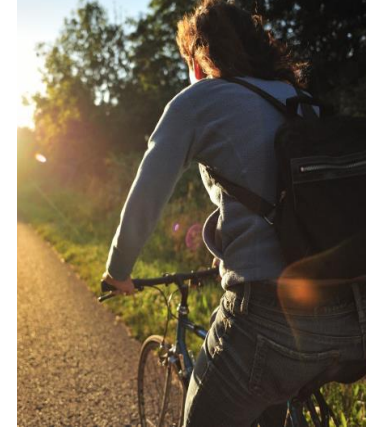
RESOURCES



ENERGY



FOOD



TRANSPORT



Bristol Method

- How we made Bristol the greenest city in the UK!
- 35 Case Studies to share our experience
- Being read in 55 countries

www.bristol2015.co.uk/method



2015 in Numbers

74 international delegations

200 community projects

1,000 events, mostly free

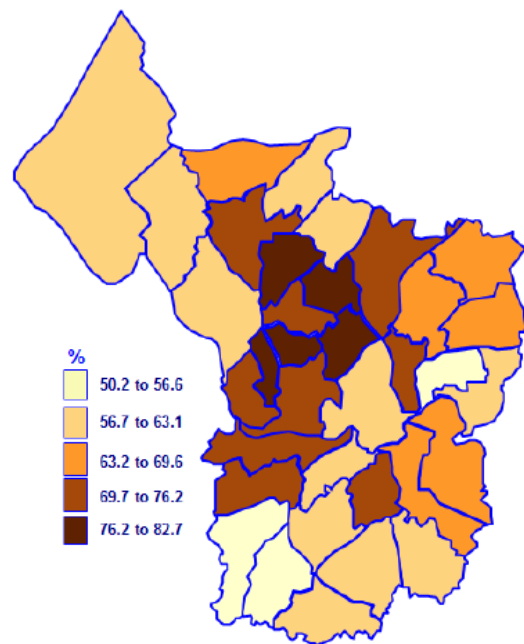
1,200 businesses involved

14,000 school children – sustainability lessons

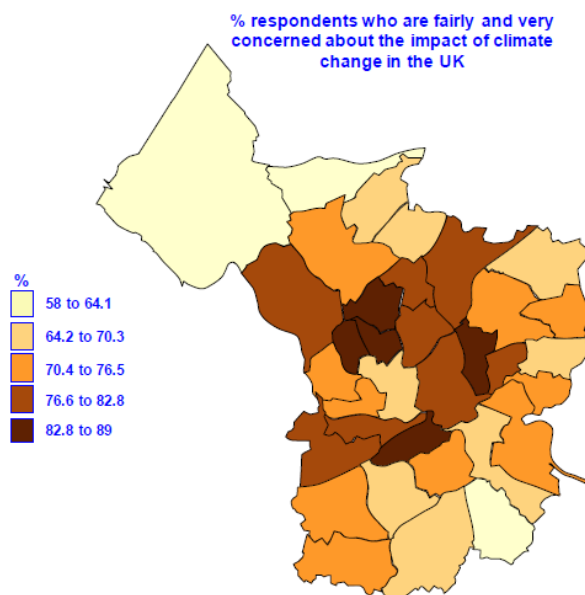
36,000 school children tree planting



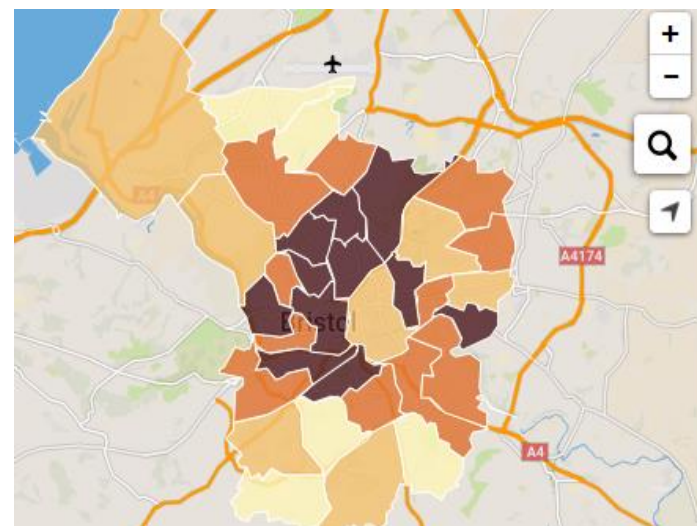
Residents' concern about climate change



2013
66%



2015
71%

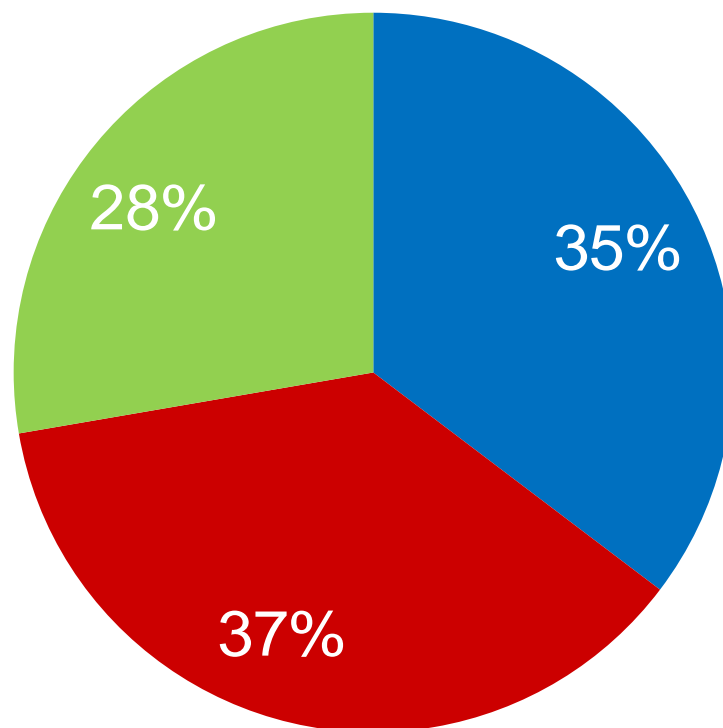


2017
81%



Local* CO₂ emissions 2015

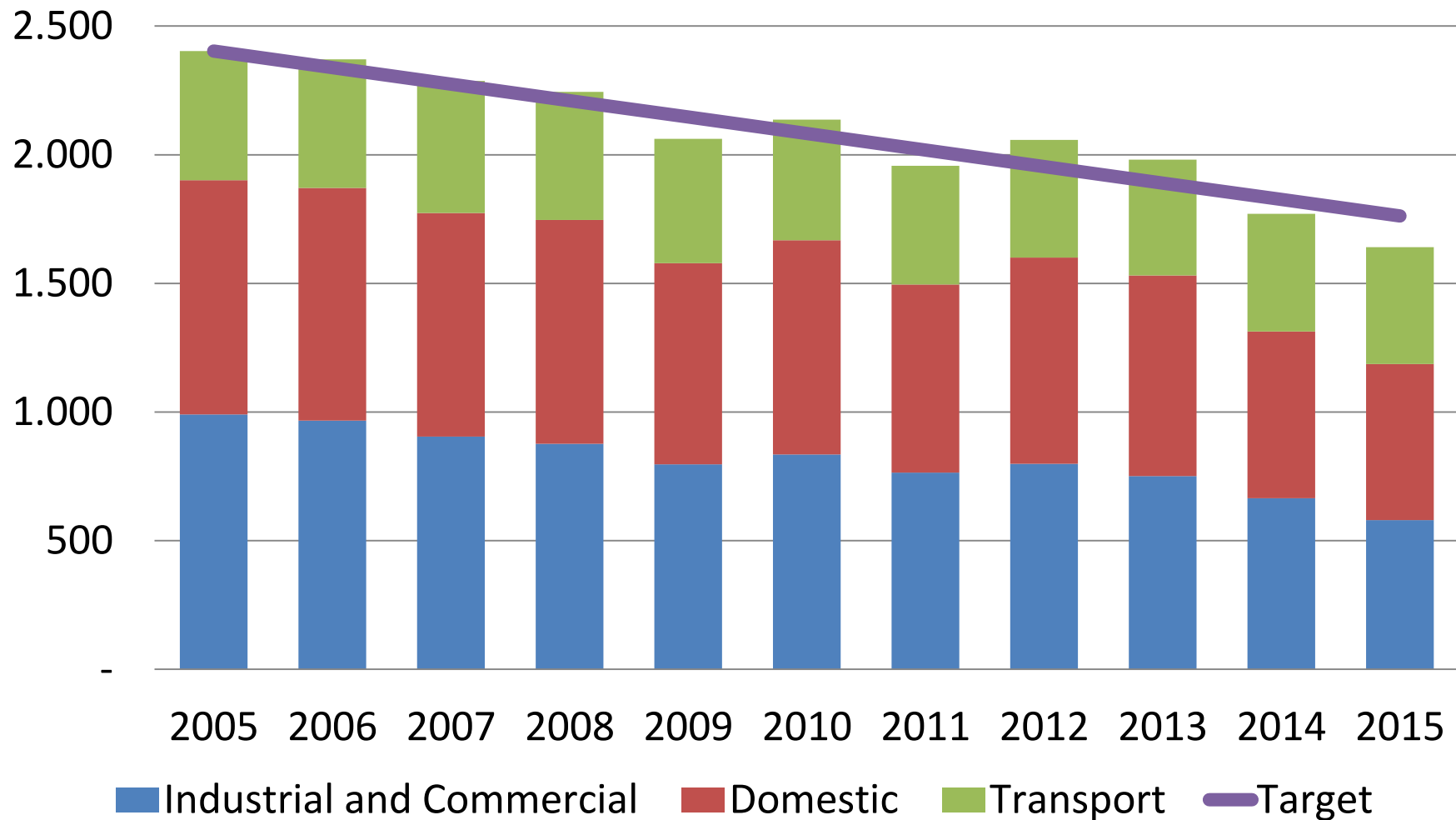
■ Business ■ Domestic ■ Transport



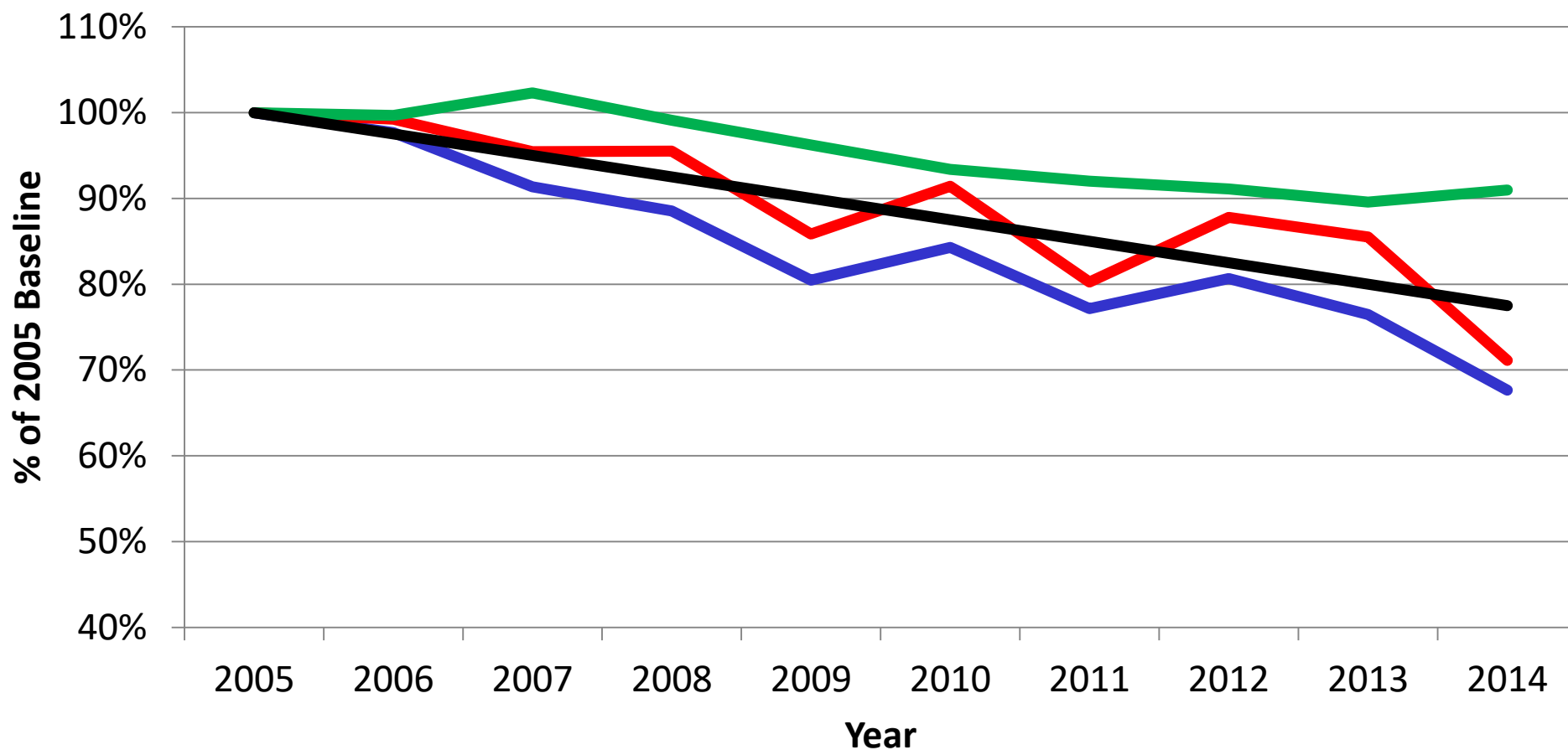
* Excludes Motorways and EU Emissions Trading Scheme



Reducing Local CO₂ emissions



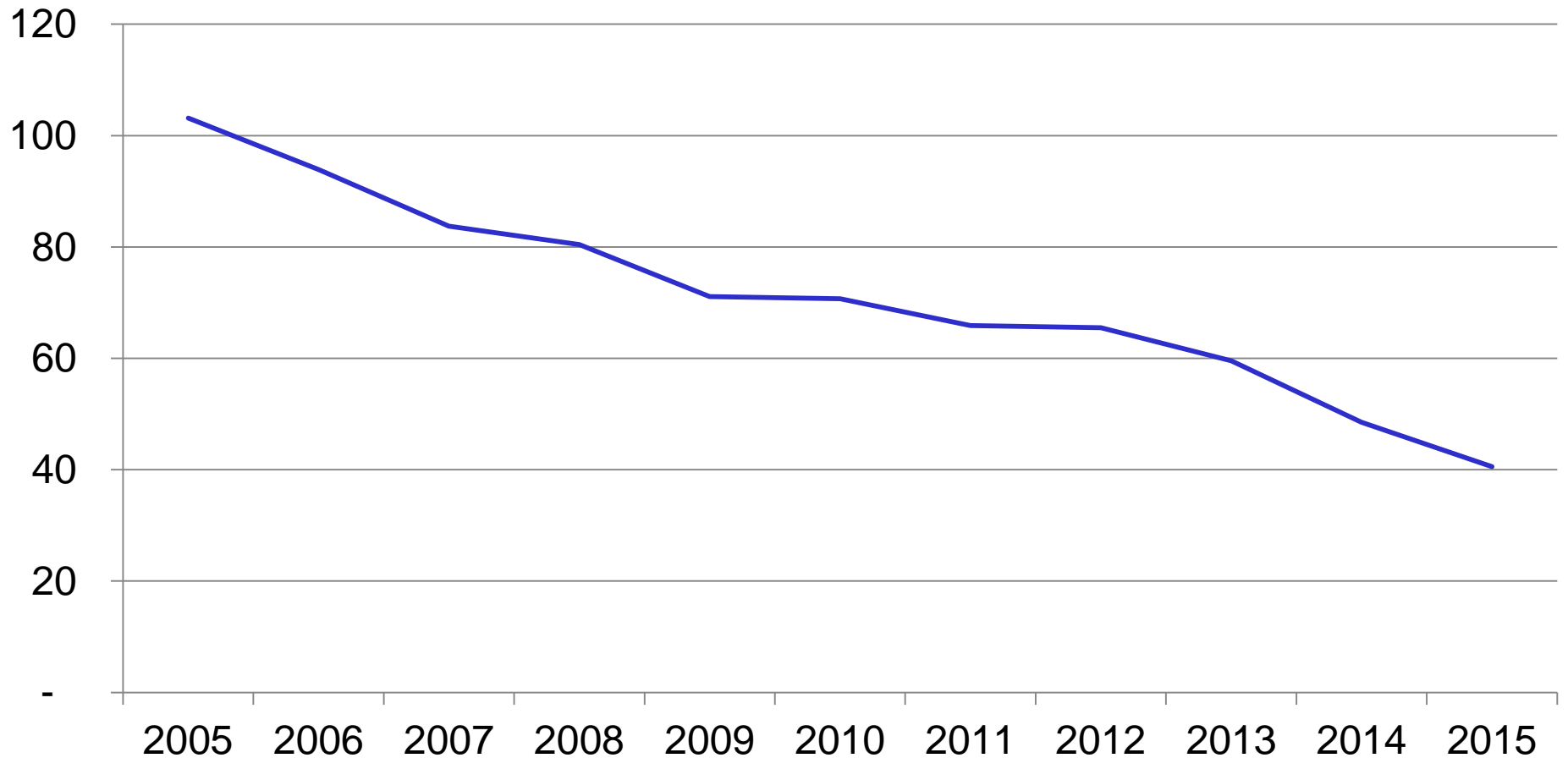
2005-2015 Emissions by Sector



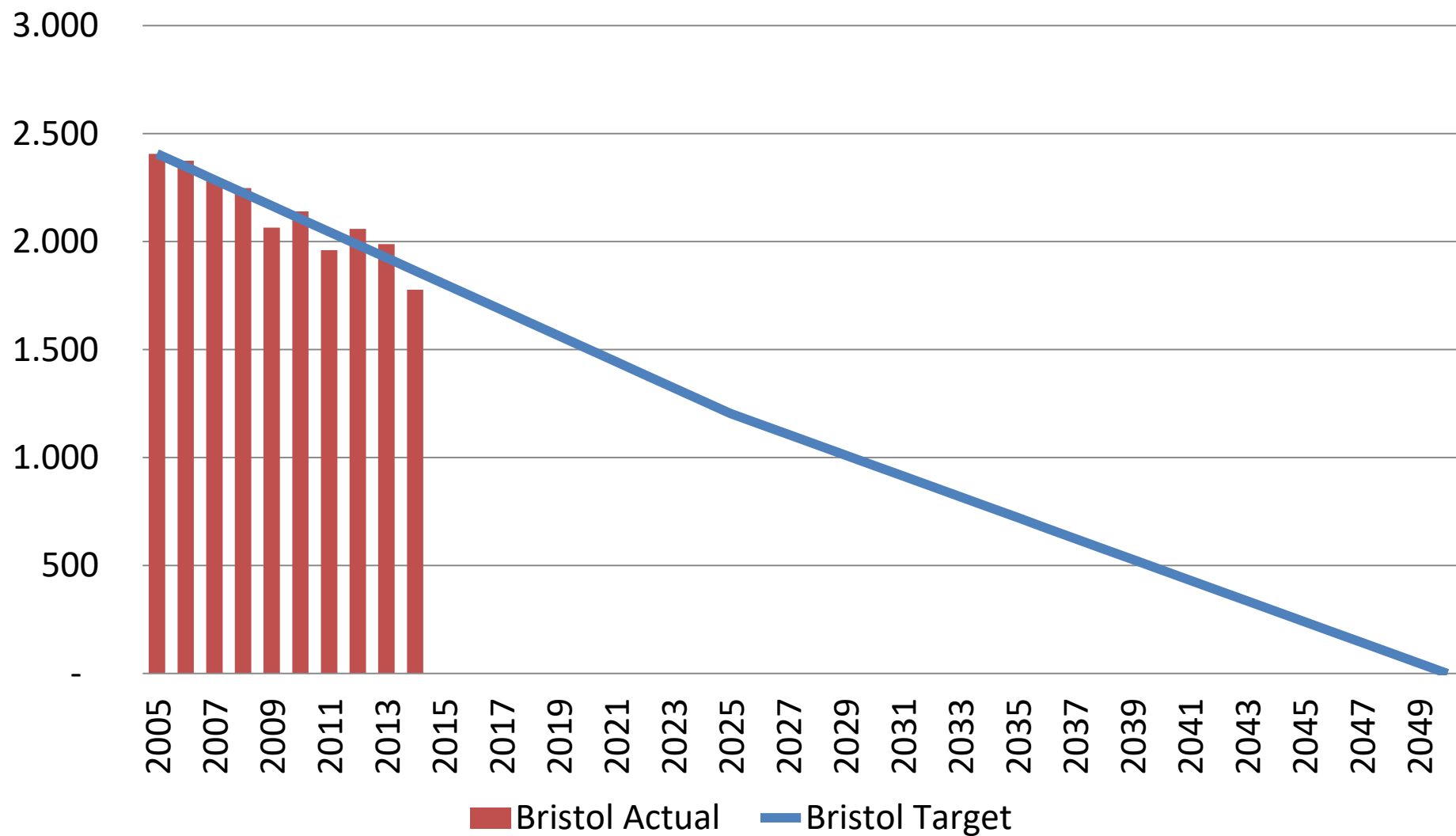
— Industry and Commercial — Domestic — Transport — Target



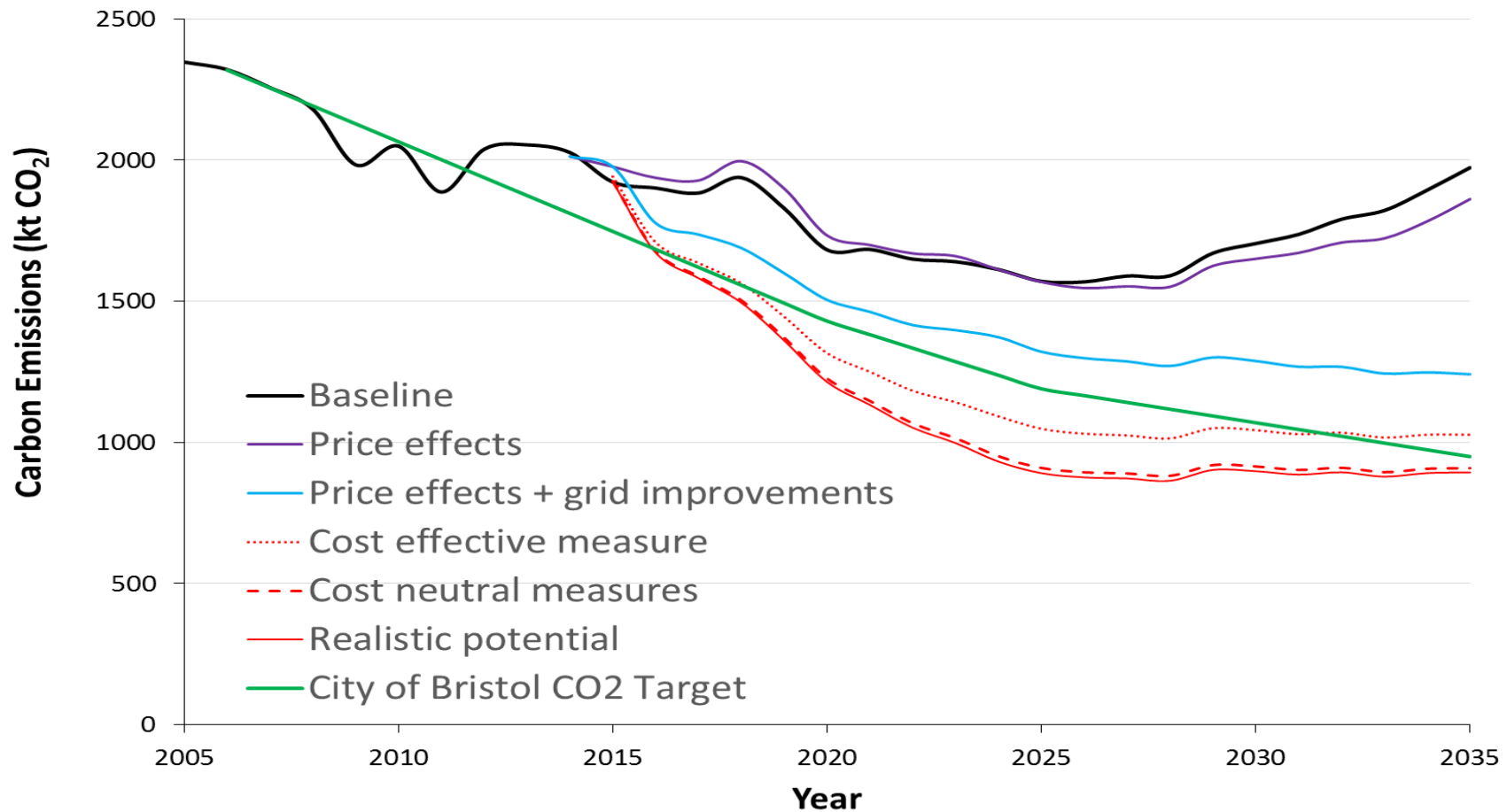
Carbon Intensity of our Economy



A New Target – Zero CO₂ 2050



Developing a range of scenarios





RENEWABLE



DISTRICT HEATING

RETROFIT



NEW BUILD



BRISTOL

energy



SMART

Key



Smart Data



Low Carbon
Heat and Energy



Battery Storage

Low Emission
Transport



Energy-efficiency
for existing housing



In-home
Smart Appliances



VA

Marine and
Hydro-electricity

Bio-gas

Capturing energy
from Avonmouth

Utilising our own land to
enable renewables

Waste Heat from
industrial processes

Hydrogen
Production

Locally owned
renewables

High Energy
Demand City Centre

Peak Power
Demand Response

Low Carbon,
renewable Arena

Distributed
Energy Centres

Local
Battery Storage

Smart Data
Centre

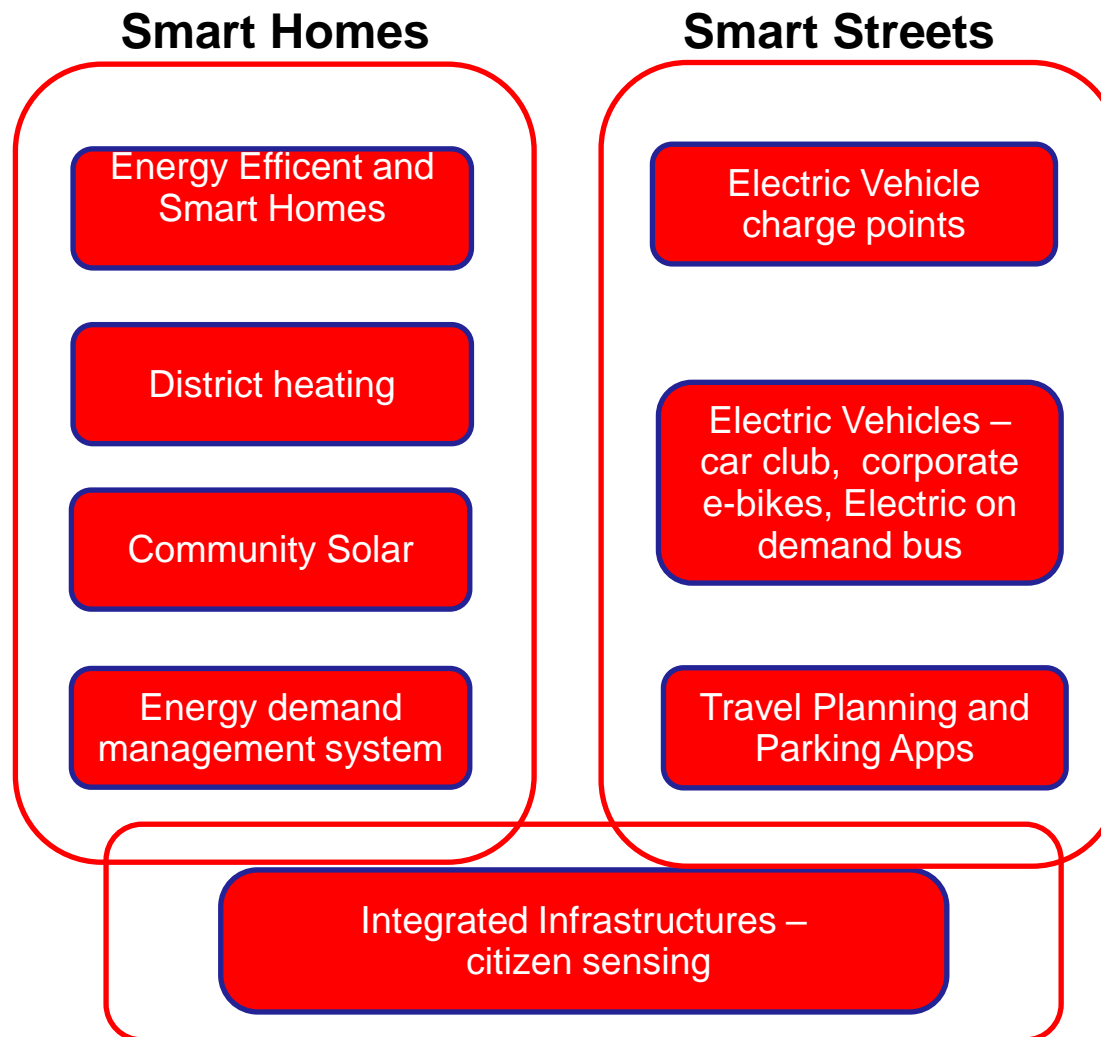
Local Micro Grid
and renewables

High Energy
Efficiency Standards

Electric
Vehicle Charging

Urban Density

The REPLICATE Project



Our 10 year Energy Programme

- Create a low-carbon, smart energy system
- Work in partnership - locally, nationally and internationally
- Deliver €1bn of low-carbon, smart energy infrastructure investment over the next 10 years.
- Deliver multiple benefits - reduce fuel poverty, create jobs and increase energy resilience

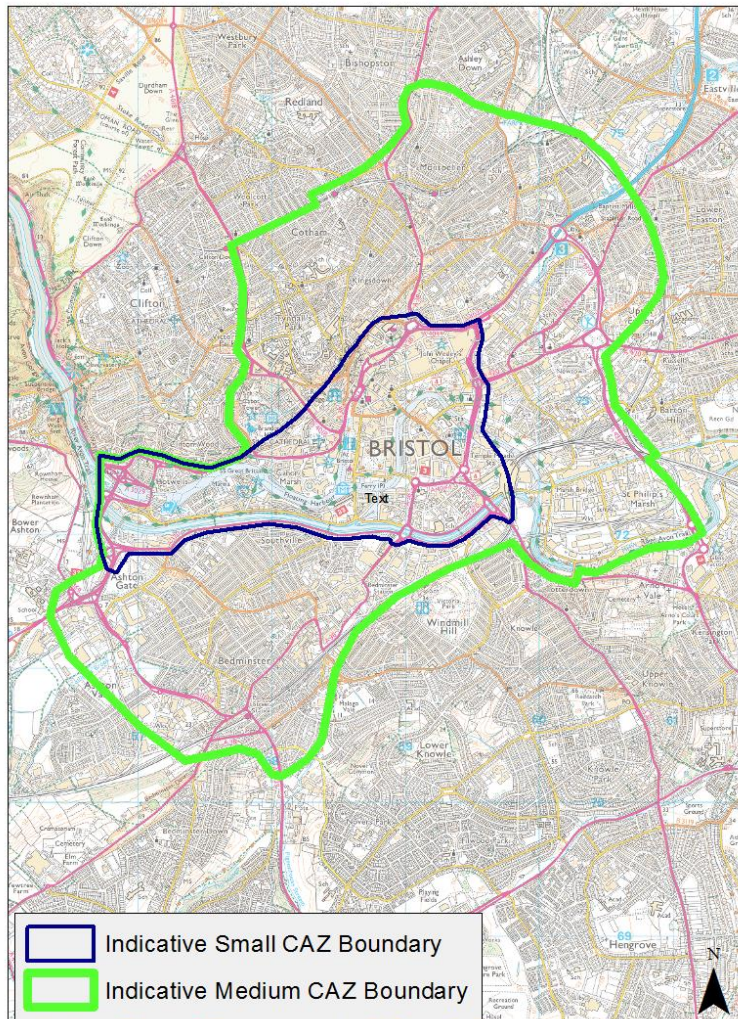


Transport

- Promoting walking and cycling
- Investment in mass transit
- Bio-Methane Buses – powered by sewage and food waste from the city
- EV for municipal and private cars



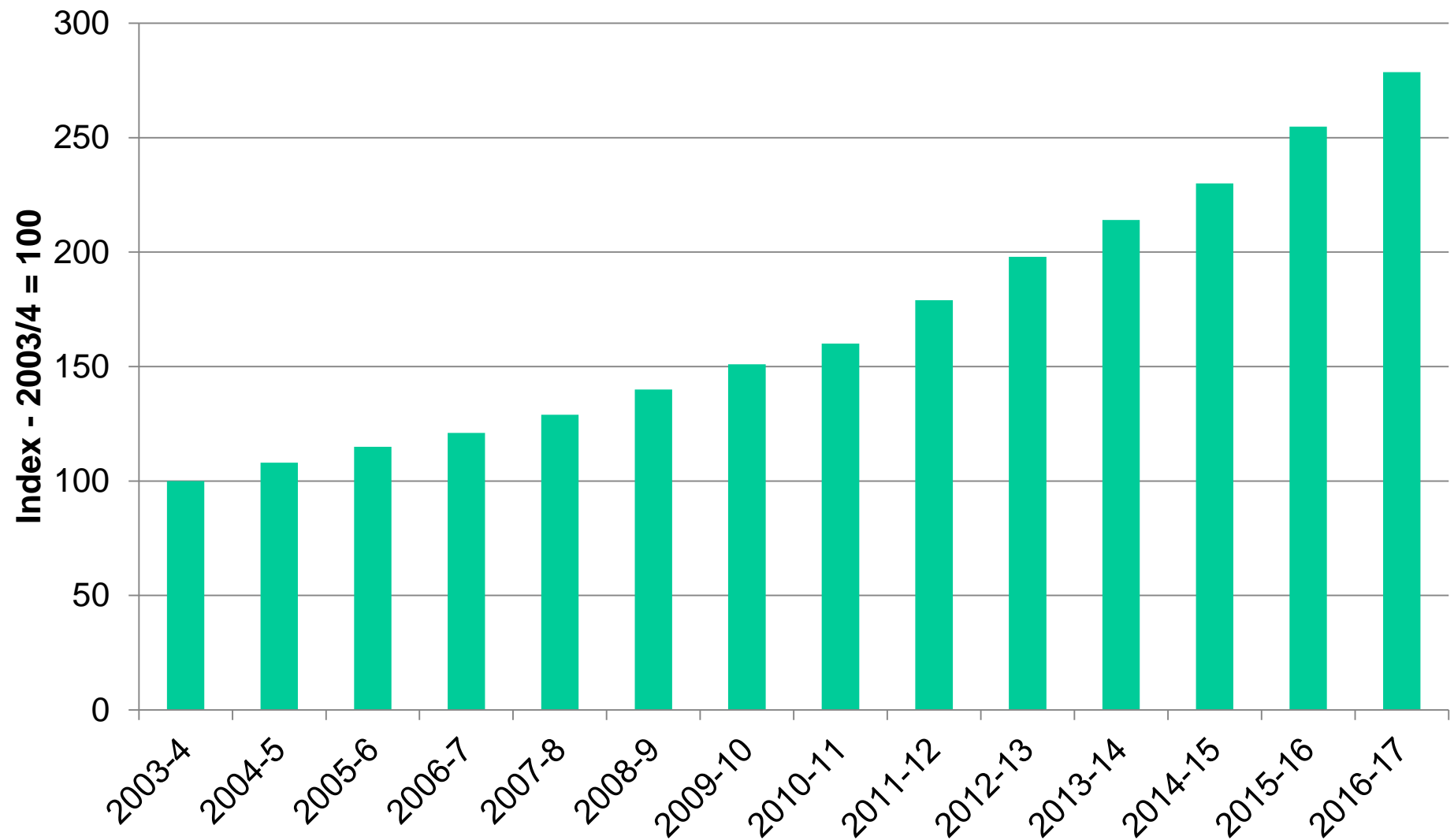
Air pollution



- Strong city leadership
- Engaging citizens with the hidden problem and potential solutions
- Helping citizens and businesses to change
- New infrastructure
- Charging the most polluting vehicles



Becoming a Cycling City



Education

- Sustainable Shaun Educational Game
 - Available in European Languages
 - <https://www.shaunthesheep.com/news/sustainable-shaun-game-launches-across-eu>
- University of West of England
 - Every student is educated in sustainability
 - <http://www1.uwe.ac.uk/about/corporateinformation/sustainability/education.aspx>



Promoting Cycling



Some ingredients

- Citizen engagement and concern
- Political leadership to set the challenge
- Cross party support to take some risks
- A small team of dedicated staff
- Financial support from EU ELENA programme
- Focus of the European Green Capital Award
- Starting small, getting bigger and bigger
- Strategically tactical!



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