

# Liverpool City Region



# Zero Waste 2040 Strategic Framework

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# Introduction

The Liverpool City Region Zero Waste 2040 Strategy sits firmly in the context of climate action to deliver a net zero carbon city region by 2040. Climate emergencies have been declared, public awareness is rising and the appetite for action is growing. This framework outlines the proposed, ambitious strategy which is our response to maximising the impact of material resource use to cut carbon emissions across the city region.

Our management of material resources has come a long way in the last 20 years. Recycling levels have risen, and landfill has fallen, but in the next 20 years, we need to do even more. Implementation of the National Resources and Waste Strategy in the city region means we need to transition towards even greater circulation and decarbonisation of material resources in our economy, backed by infrastructure fit for the future and a shift away from wasteful behaviours by all.

## Carbon Footprint



Waste



Gas



Refinery



Recycling



Transport



Fuel



Electricity



CO<sub>2</sub>

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**This strategy aims to deliver zero avoidable waste across the Liverpool City Region (LCR) by 2040. The strategy will include graphics throughout to illustrate key points and emphasise the cross-cutting connections and dependencies between the themes, outcomes, and actions.**

This means a system change for all sectors and a new way of thinking about our use of material resources. We must embed waste prevention throughout the design, production and delivery of our goods and services. Reusing products will help us consume fewer resources and expansion of recycling services for household and business wastes will recover and return material resources back into our economy. Improving our knowledge and understanding of resource flows through the city region will help prioritise action and focus our education campaigns on behavioural change.

Following these steps will lead us towards a low carbon circular economy and our joint zero waste and net zero carbon 2040 goals.

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# Working together

In order to tackle the climate emergency and reach the target of Net Zero Carbon 2040, we must work towards zero avoidable waste by 2040. The purpose of this strategy is to collectively work to meet the zero waste 2040 target and provide a single voice on all zero waste affairs. This strategy will cover all material resources and waste issues for the LCR, including supporting LCR businesses to increase the efficient circular use of material resources.

# What is zero waste?

“To date, efforts to tackle the crisis have focused on a transition to renewable energy complemented by energy efficiency. Though crucial and wholly consistent with a circular economy, these measures can only address 55% of emissions. The remaining 45% comes from producing the cars, clothes, food and other products that we use every day.”

- Ellen MacArthur Foundation, Completing the picture: How the circular economy tackles climate change (2021)

So we must reduce consumption, and reuse and recirculate these products and materials to reduce our Greenhouse Gas (GHG) emissions.



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# Why do we need to do it?

Aiming for and achieving zero waste has a pivotal role in reducing the impact of climate change. In 2020, the global average surface temperature of the earth equalled 2016 as the warmest year on record.

The average temperature was

**1.02 degrees Celsius higher**

than the baseline period of 1951-1980. Worse, the last seven years have been the warmest since records began.

With the planet's population and resource consumption continuing to grow, it is expected that waste will double and treble by 2050 and 2100.

Working towards zero avoidable waste is a whole systems approach that aims for a significant shift in the way materials flow through society.



// it is expected that waste will double and treble by 2050 & 2100.



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# What does reaching a zero waste target mean for LCR?



We need to move from a linear to a circular economy. This means transforming production and manufacturing so that waste and carbon emissions are designed out of our use of material resources.



We need to reduce the number of material resources the LCR consumes and wastes. To achieve this, we need to influence businesses and consumers and change their behaviours towards greater reuse of products.



We need to recover the maximum value from any waste resources we generate. This means future-proofing collections and infrastructure to capture and process more resources. Doing this will result in reduced carbon emissions from any materials we treat.

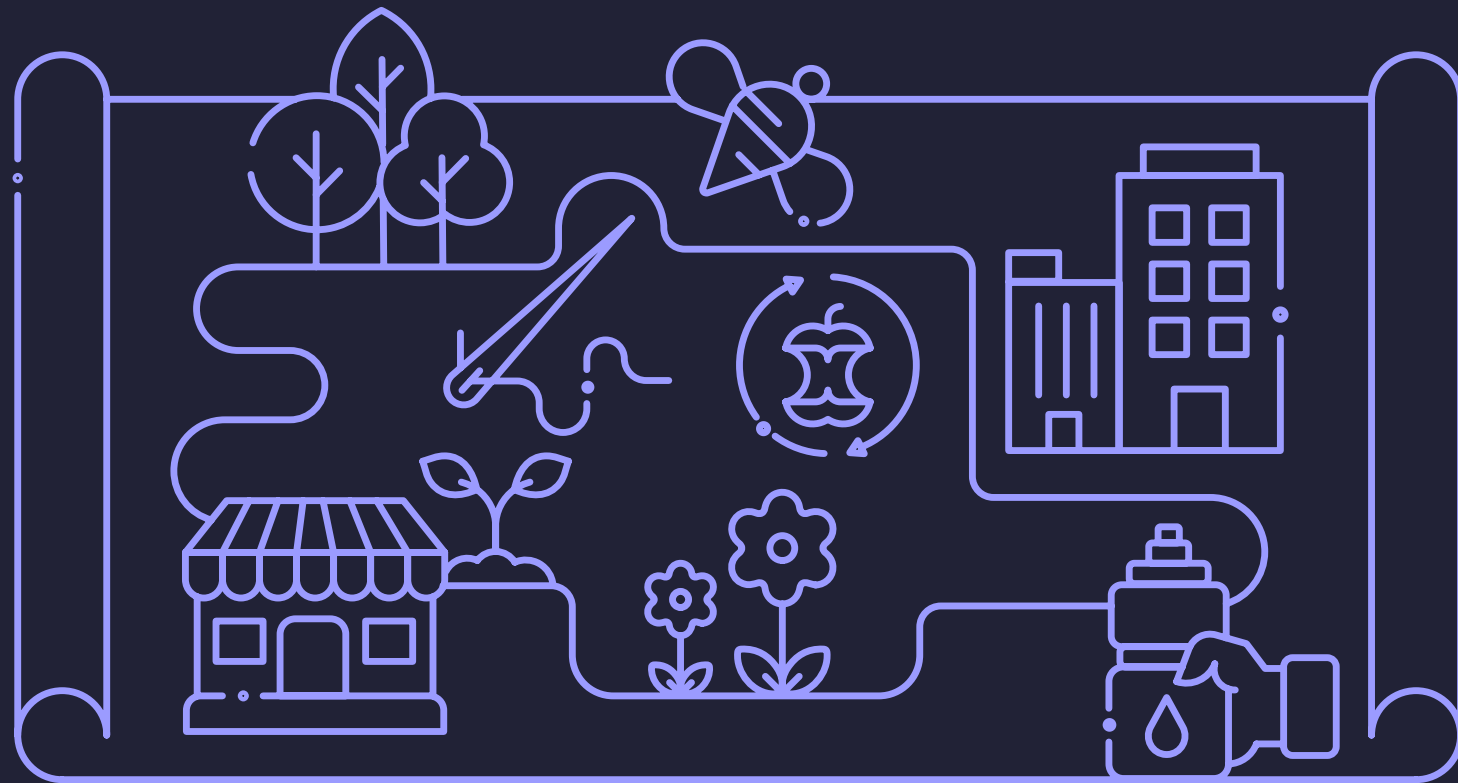


We need to expand our knowledge of LCR material resources and change wasteful behaviours. This means evaluating data and developing educational campaigns to bring businesses and consumers on board with our zero waste goal.

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# Our vision of LCR 2040



The strategy will include a graphic illustrating what success looks like, painting a picture of the LCR in 2040 assuming we achieve the targets of net zero carbon 2040 and zero waste. It will include things like;

- Circular businesses
- A circular flow of materials
- Share and rental models
- Reuse, repair, and refill
- A comprehensive recycling system
- Biodiversity, local growing schemes, shared composting facilities
- Local produce, manufacturing, and services
- Increase in green jobs



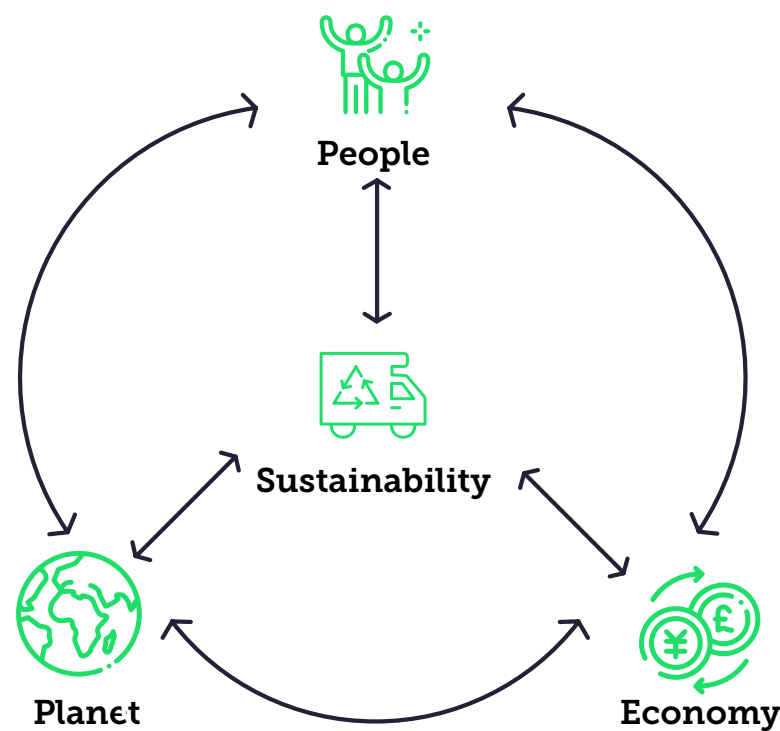
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# Key themes

The three key themes are the focus areas of sustainability and link to the priorities of the Strategic Waste Partnership. A shift towards a more circular economy can play a significant part in meeting climate targets, alongside bringing crucial environmental, economic, and social benefits.



## People

The wellbeing of LCR residents is central to our commitment of meeting net zero carbon and zero waste goals. We want a City Region where our use of resources creates social value and thriving communities.

## Planet

Using resources wisely and reducing waste is critical in achieving net zero and sustaining our planet. We want to transition to a zero waste LCR, where a healthy and diverse environment enriches lives and strengthens the economy.

## Economy

Transitioning to a circular LCR will create a wealth of green jobs and open up new opportunities for sustainable businesses. We want enterprises to prosper through rethinking the role of resources and designing out waste.



# Strategic outcomes

The themes of people, planet and economy are interlinked and generate multiple outcomes. We have identified the following strategic outcomes for this strategy.



## People

- 1. Governance
- 2. Social value



## Planet

- 1. Climate and carbon
- 2. Resource efficiency



## Economy

- 1. Cost efficiency
- 2. Green jobs
- 3. Circular economy

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# People

## Governance

This strategy will be delivered through coordinated action and will provide a single voice on zero waste issues in the Liverpool City Region. Each partner will have clear accountability for delivering this strategy, and they will work to:

- Examine the options for future Governance of joint zero waste work, including the District Portfolio Holders and Merseyside Recycling and Waste Authority (MRWA) Members throughout the development and implementation of the strategy
- Develop capacity for joint working
- Demonstrate leadership in tackling commercial and industrial waste
- Set LCR reuse and recycling targets for municipal waste
- Develop waste data capture and analysis capacity
- Align the LCR's Zero Waste performance with the United Nations (UN) Sustainable Development Goals (SDGs)

## Social value

This strategy will maximise social value in the transition to a zero waste Liverpool City Region. It will explore how we can:

- Expand community zero waste activity
- Expand education and behavioural change activity
- Engage the public and businesses in developing zero waste solutions
- Develop capacity for increased reuse
- Expand food waste prevention activity
- Maximise social value from reuse
- Expand home and community composting

Each partner will have clear accountability for delivering this strategy

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# Planet

## Climate and carbon

This strategy will contribute to net zero carbon 2040 and adapt our resource and waste services to climate change. It will work to:

- Increase targeted zero waste campaigns and communications
- Develop zero waste online resources
- Develop a credible pathway to zero waste and demonstrate how it contributes to the overall net zero carbon target
- Investigate opportunities for carbon capture from waste facilities, including former landfill sites
- Expand education and behavioural change activity
- Determine options for decarbonising all waste vehicle fleets and develop a plan to move to zero-emissions vehicles
- Develop a 20-minute neighbourhood plan for waste and resources, including mobile and localised mini Household Waste Recycling Centres (HWRCs)
- Create a reuse culture in the Liverpool City Region
- Ensure the LCR utilises Carbon Capture Utilisation and Storage (CCUS) technology and generates renewable energy where feasible
- Investigate options for producing hydrogen from waste
- Establish an LCR Reuse Network
- Decarbonise our waste system by reducing residual waste



Retain maximum value for as long as possible...

## Resource efficiency

This strategy will ensure resources are conserved and retain maximum value for as long as possible, working to:

- Ensure future planning for housing development across the City Region identifies additional waste management costs
- Review the LCR waste infrastructure in light of the new collection, reuse and recycling requirements
- Switch the focus on Household Waste and Recycling Centres (HWRCs) from disposal and recycling to reuse and repair
- Establish a plan to reduce agricultural waste and ensure fresh local produce is accessible to residents
- Introduce separate food waste collections
- Promote zero waste building design and construction
- Collect more materials in recycling collections
- Align our infrastructure and operations to zero waste
- Introduce deposit return schemes
- Reduce clothing and textiles waste

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# Economy

## Cost efficiency

This strategy will ensure efficient use of limited funding in delivering resource and waste services. It will outline how we can:

- Agree on a waste levy model which incentivises zero avoidable waste
- Review municipal waste collection, treatment and disposal contracts to ensure value for money
- Procure separate food waste collections
- Procure zero-emission waste vehicle fleets
- Agree and roll out appropriate recycling collection models
- Optimise waste collection rounds across boundaries
- Agree on a reuse-led bulky waste collection and charges model
- Reduce single-use packaging by promoting reuse and refill services
- Reduce waste crime

## Green jobs

This strategy will retain and create new job opportunities, focusing on how we can:

- Promote investment with a focus on moving up the waste hierarchy
- Establish a reuse hub to promote reuse and repair activities
- Encourage the development of remanufacturing industry in the City Region
- Provide support for expanding rental/leasing services
- Attract investment in reuse and reprocessing capacity

## Circular economy

This strategy will grow and embed a circular economy in the Liverpool City Region and will:

- Establish support for businesses in the LCR to become more circular
- Develop Circular Economy education tools for all ages
- Undertake a Liverpool City Region City Scan
- Promote joint working to share best practice and resource efficiency
- Develop the LCR as a circular region, taking into consideration the 20-minute neighbourhood model

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This strategy will ensure efficient use of limited funding

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# Metrics, performance, and progress reporting

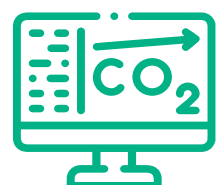
This section of the strategy will outline the approach to measuring and reporting progress, success, and achievements, exploring:



Dashboards



Benchmarking



Carbon Metric



Comparison with other LCR decarbonisation investments



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