

Welcome!



Key Information



Toilet Locations: Facilities are located to the rear of the building on all floors.



Fire Alarm: There are no fire alarm tests scheduled for today. If the alarm sounds, please proceed to the designated meeting point, which is across the road at *Sherrington Building*.



Photograph Consent: We plan to take some photographs during the event for promotional purposes. If you are uncomfortable with being included in these images, please let me know, and we will ensure your preferences are respected.



Questions: Each presenter will take questions after their presentation.

Agenda

Session	Details
Opening Remarks	Welcome, introductions, and framing for the day.
Climate Awareness Workshop	Climate awareness workshop - Namitha Madhukumar, Northwest Net Zero Hub
Refreshment Break	A short pause to reset and refresh
Circular Economy Principles	An introduction to circular economy principles - Simone Greyling, MRWA
Talking Sustainability	Social strategy - Jennifer Graley, St Helens Council
Lunch & Networking	A concluding lunch with time for informal networking and discussion.

Merseyside Recycling and Waste Authority

- The Merseyside Recycling and Waste Authority (MRWA) manages the recycling and residual household waste collected by councils throughout Merseyside and Halton.
- Our services include:
 - Managing 16 Household Waste Recycling Centres
 - 2 Material Recovery Facilities
 - 4 Waste Transfer Stations
 - Aftercare of 7 closed landfill sites
- MRWA caters to around 1.5 million residents and over **700,00 tonnes of waste each year**, with each household producing an average of **631.33 kg of residual waste annually** (2024-2025 figures).
- Recently, the Climate Change Committee told Parliament that UK recycling progress is ‘off track’, with the household recycling rate stuck between 44- 46% for over a decade. Currently, LCR maintains a **recycling rate of 35.2%**,



Find out what can and can't be recycled at home in the Liverpool City Region.

Aerosol cans

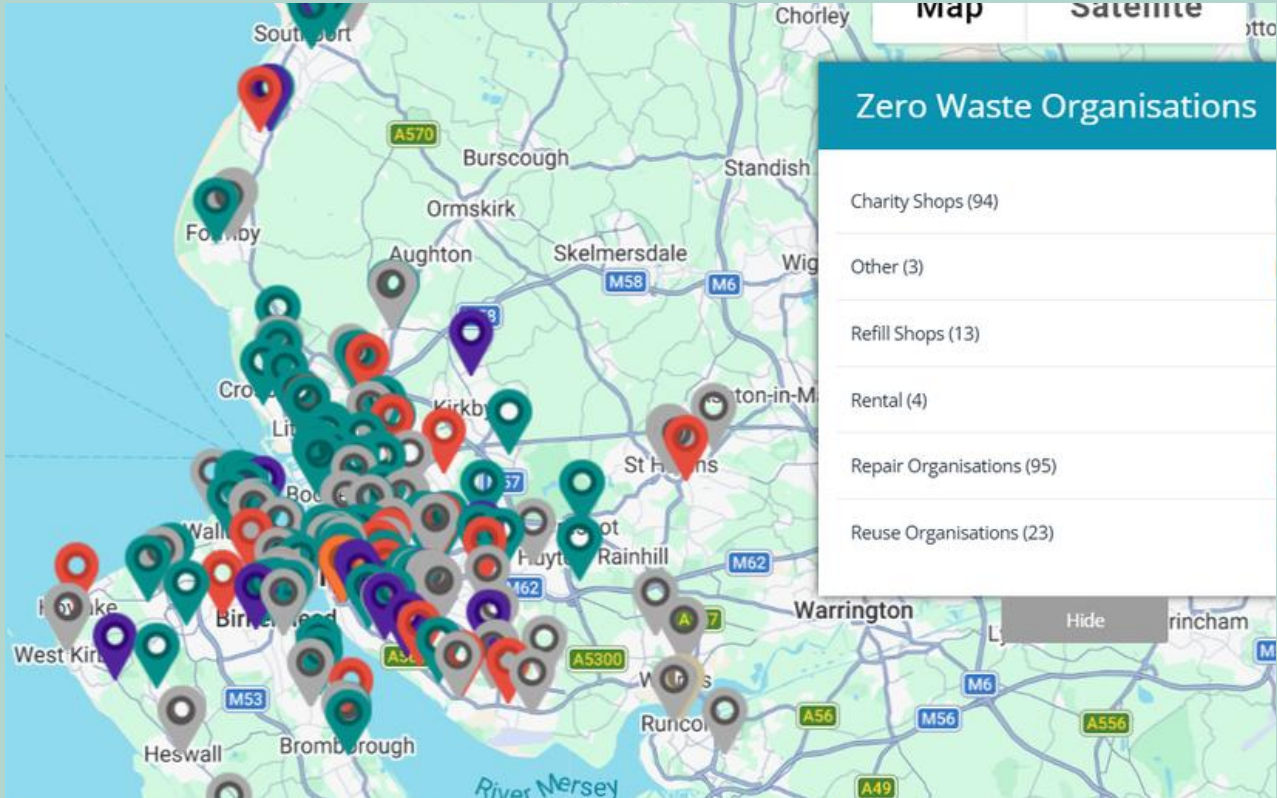
Aftershave bottles

Aluminium cans

Aluminium foil trays

Aluminium paste tubes

Animal waste / droppings



Journey of Recycling

Residents of Liverpool City Region! Come with us, as we take you on the Journey of Recycling...





Circular Economy Club Liverpool City Region



QUARTERLY NEWSLETTER

Regular updates on
new legislation, circular
case studies and new
sustainable innovation.



CIRCULAR CITIES

Focusing on circularity,
alternative measures, waste
monitoring, and legislation.



CASE STUDY SERIES

Focusing on promote local
organisations circular and
sustainable stories.



ROUNDTABLE REVIEW

Opportunity to review
previous year and plan for
yearh ahead.



**Climate Awareness Training
Circular Economy Lunch and Learn**

July 2026



Session Overview

Introduction to Climate Science

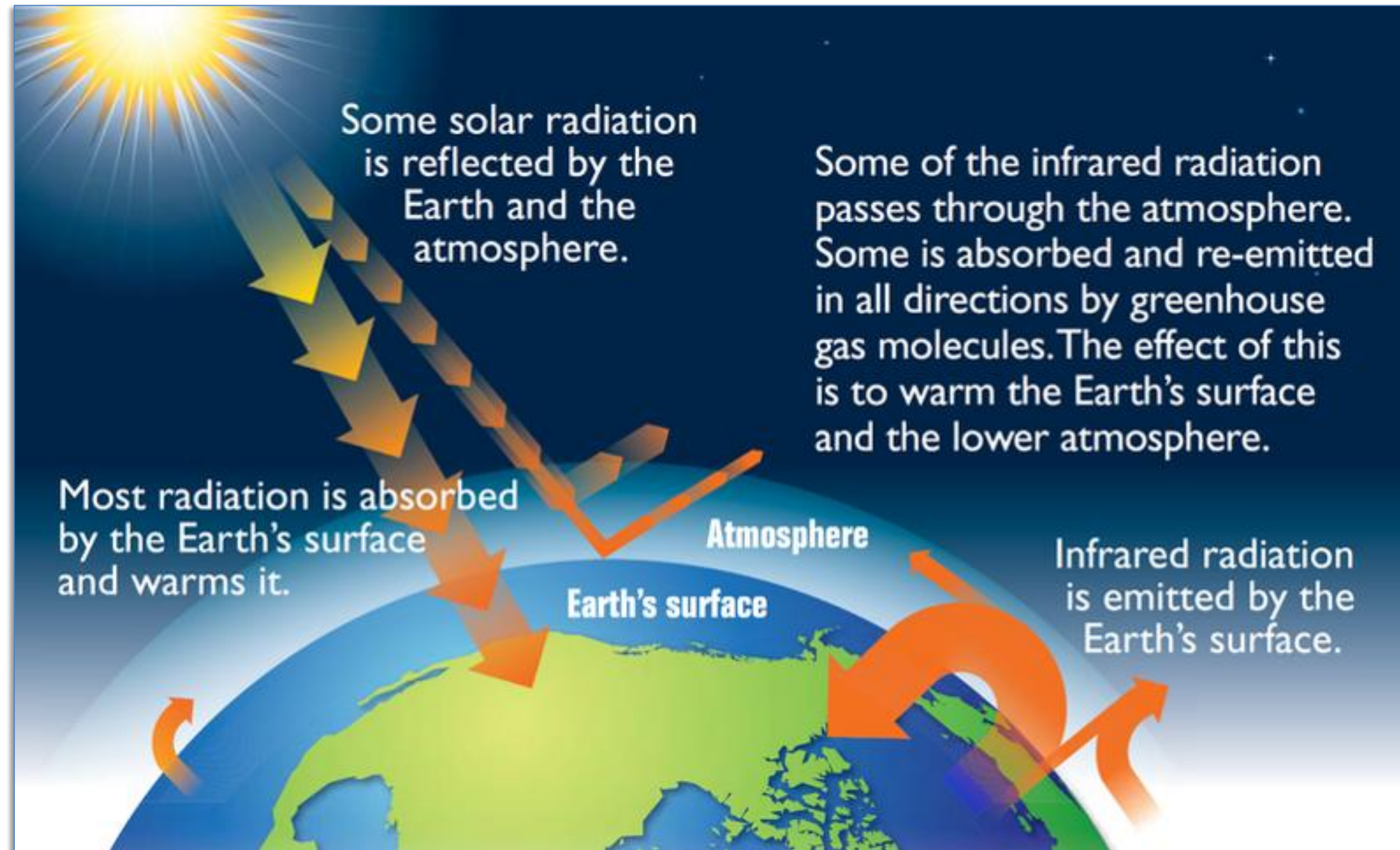
UK Carbon Budget and Emission

Waste Impact on Climate Change

Q&A

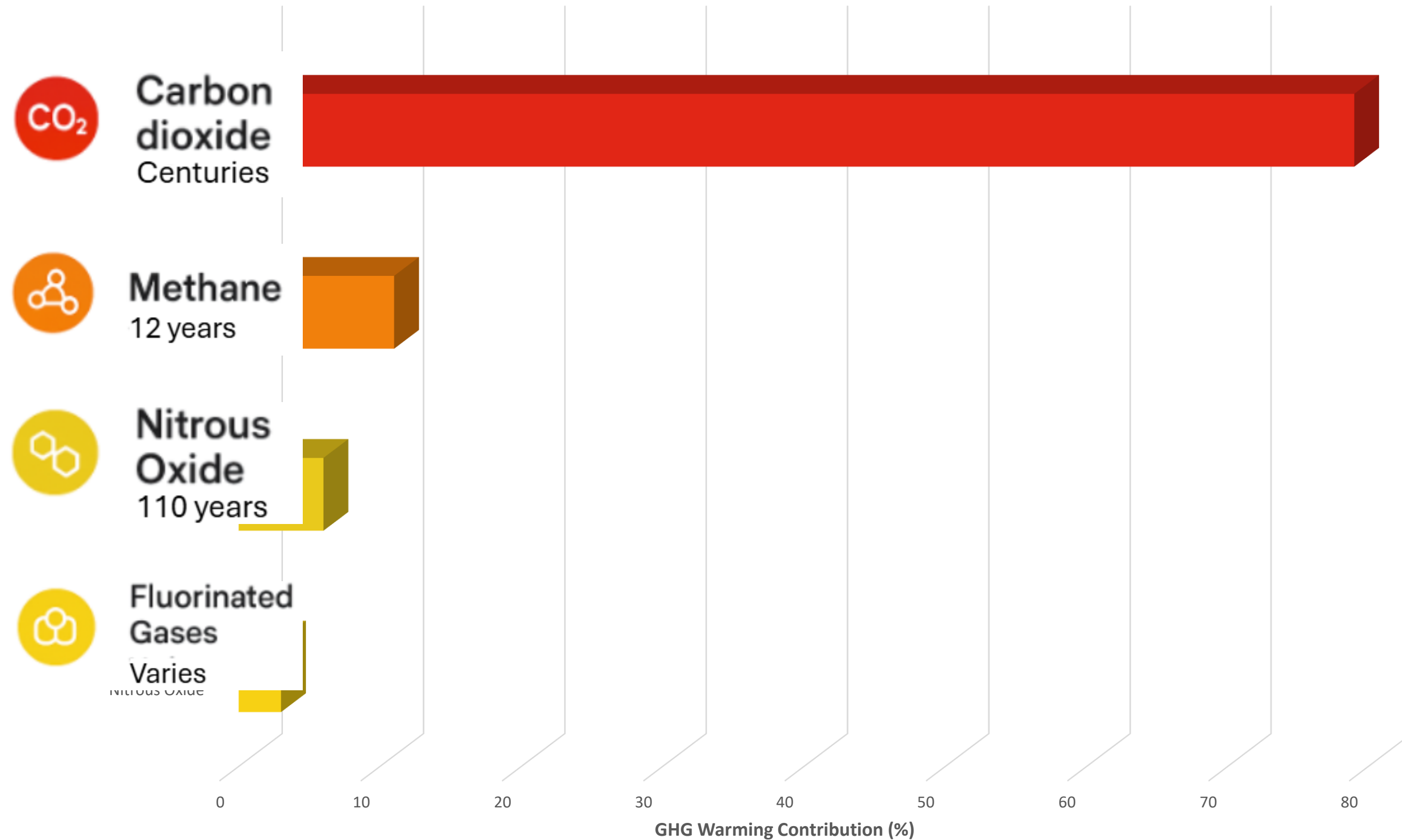
Note: The Hub delivers 2Hr **Climate Awareness Training**, a high-level summary of select parts of the wider climate topic. For full “Carbon Literacy”, the [Carbon Literacy Trust](#) accredit the gold-standard “[Carbon Literacy Programme](#)” is widely available through different providers.

Climate Science – Growing since late 1800s



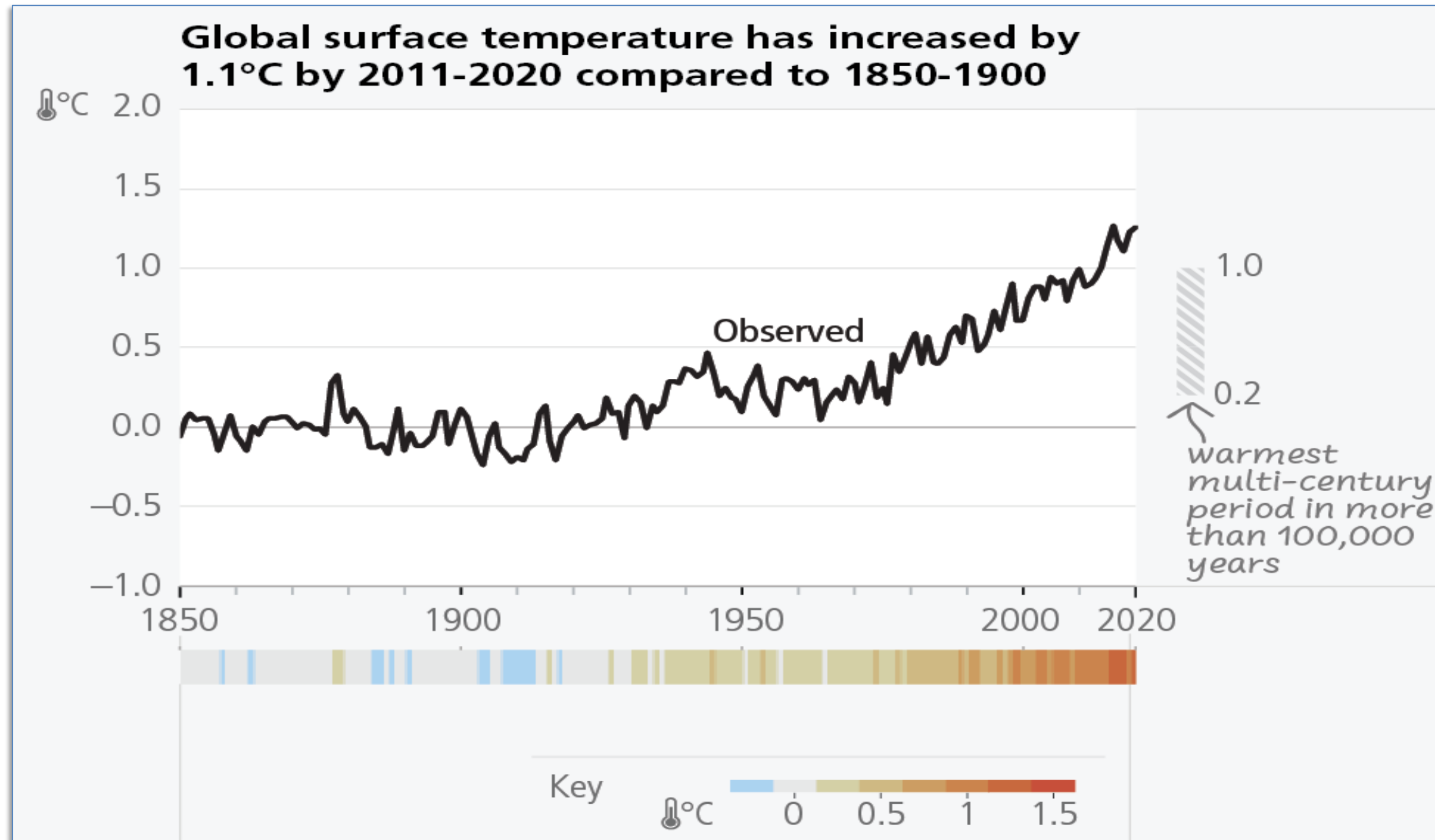
Source: [Wikimedia.org](https://www.wikipedia.org), after US EPA 2012

Greenhouse gasses: A persistent problem



Source: [Overview of Greenhouse Gases | US EPA](#)

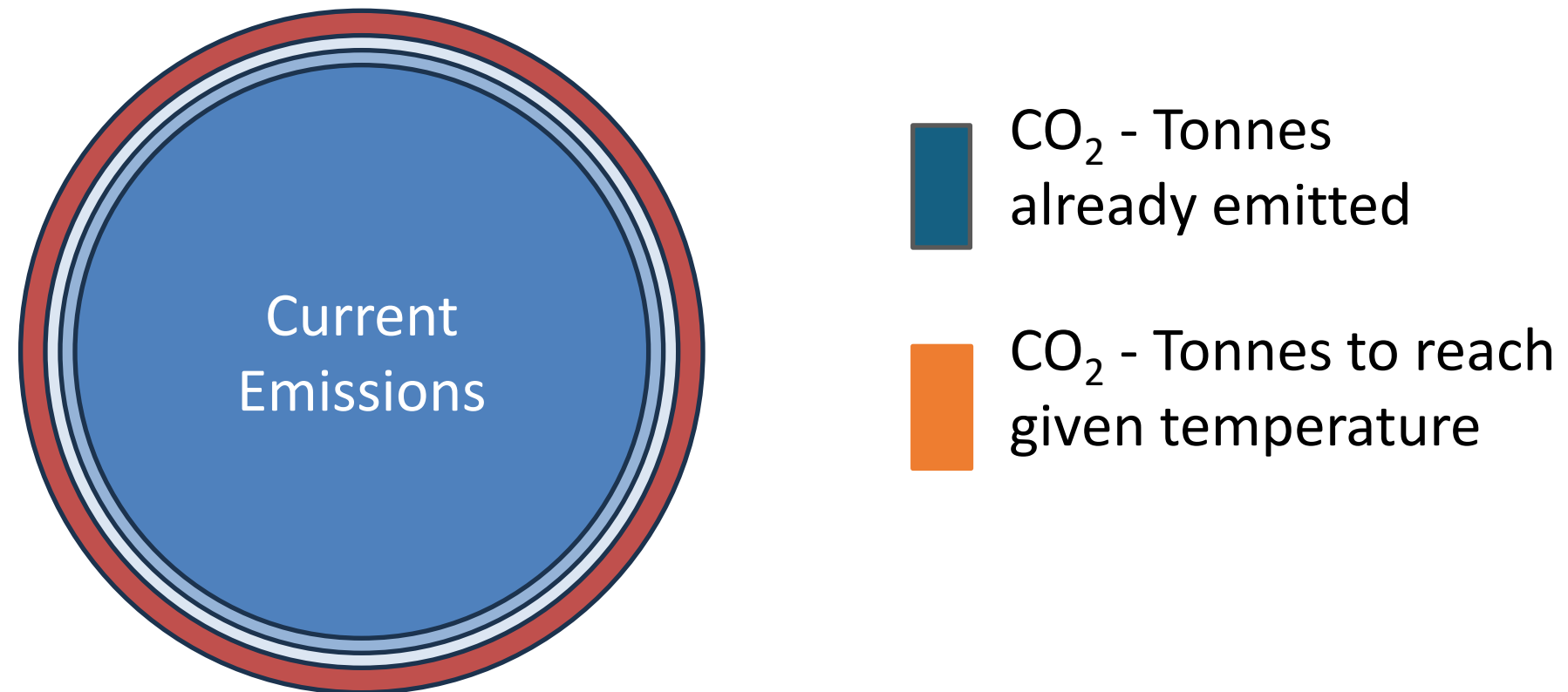
Breaking temperature records – The new ‘normal’



Source: [Change in global surface temperature](#) (IPCC AR6 Synthesis Report, Page 43).

Carbon Budgets: Why net zero by 2050?

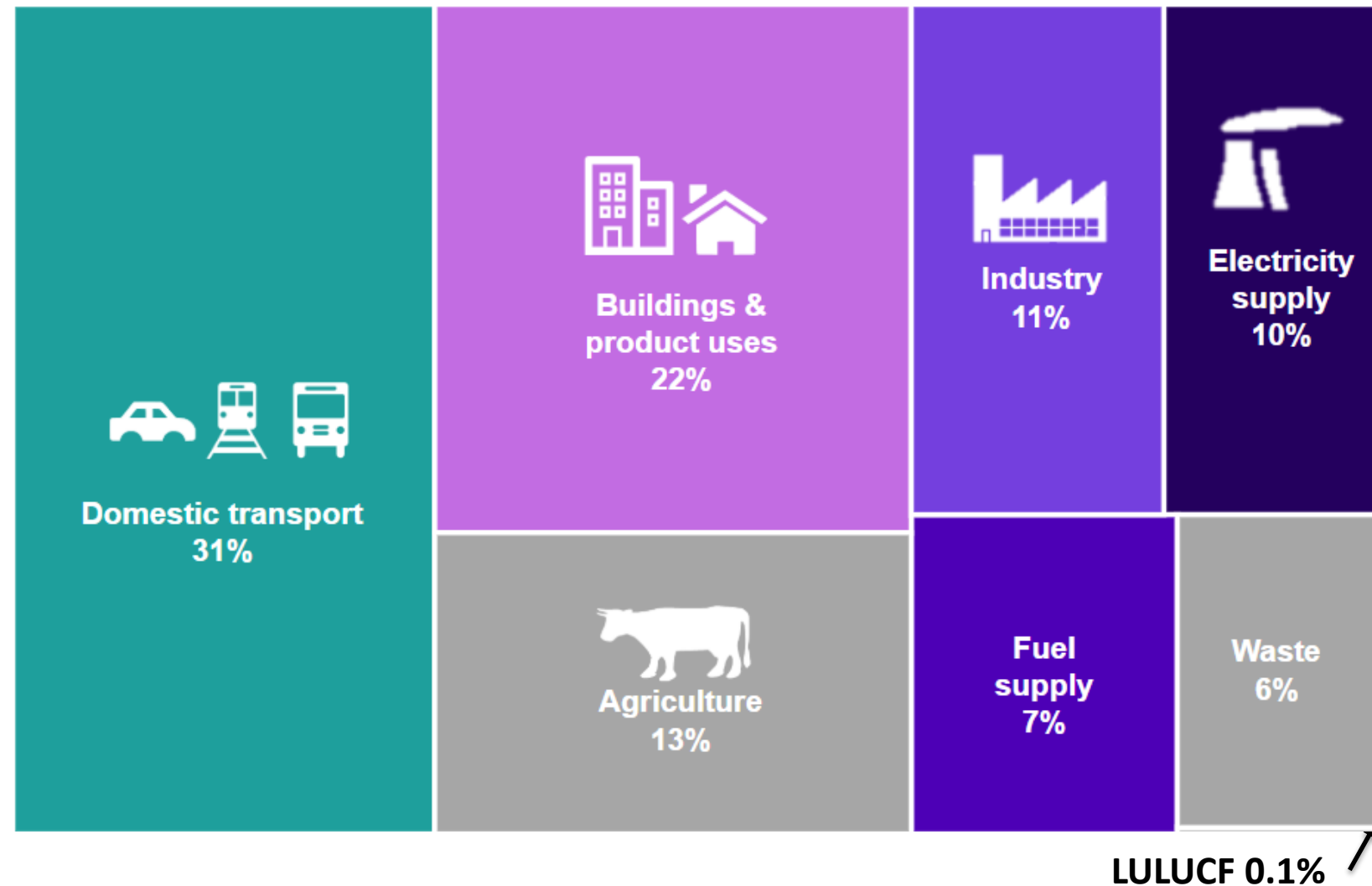
More carbon emissions = Higher Temperatures



Currently adding c.37GT CO₂ per year
1 GT = 1000 million tonnes

UK Emissions Sources (UK) (Excluding imports)

Transport now dominates UK emissions



- UK **greenhouse gas territorial emissions** sources 2025 shown by **sector**
- **Excludes** emissions associated with imports
- Technology now enabling decarbonisation focus in these areas.
- Waste : Emissions from treatment and disposal of solid and liquid waste.
 - Significant source of methane emissions in the UK.

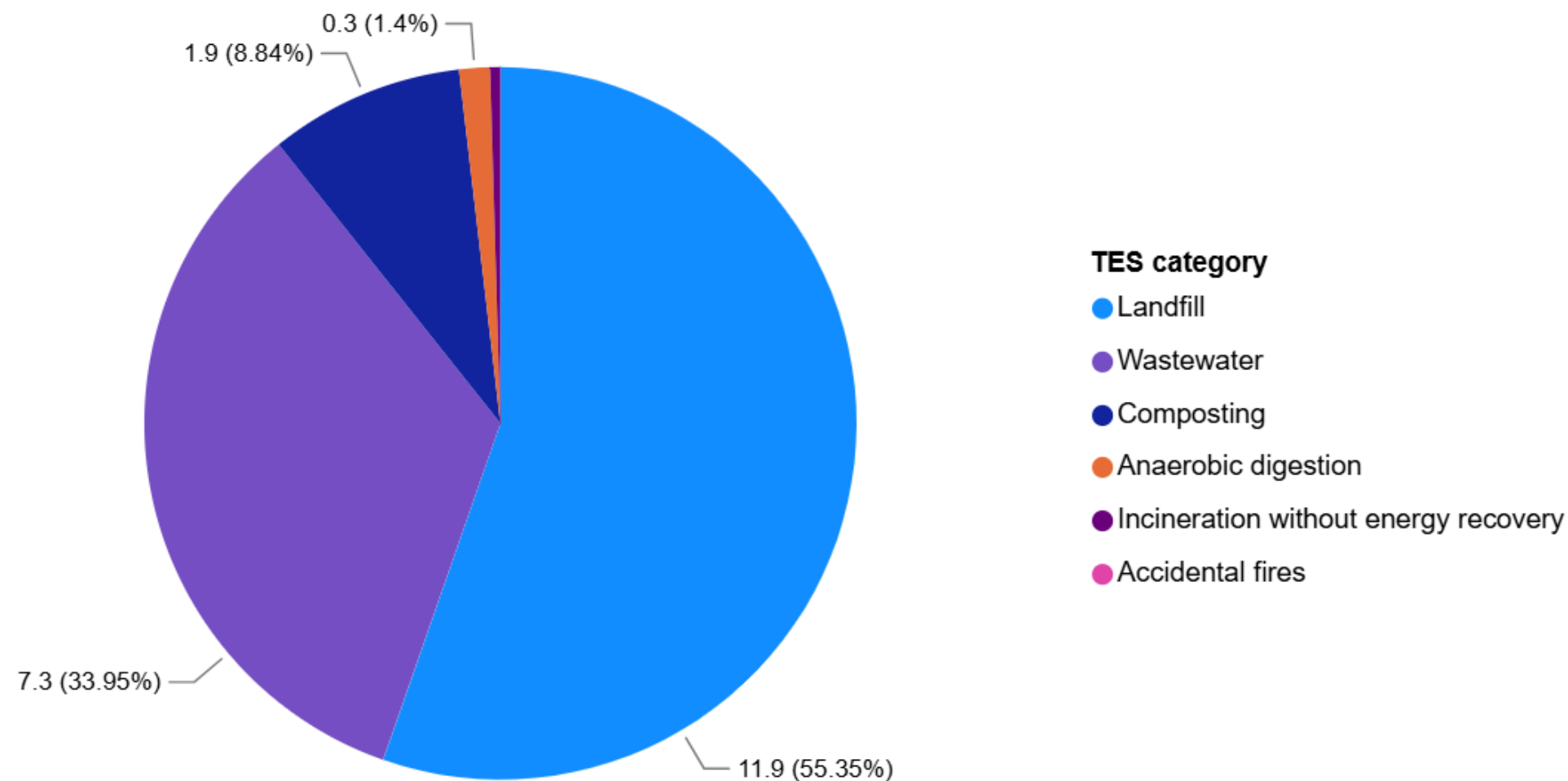
Total net UK territorial emissions, 2025 :
 367,000,000 tonnes CO_{2e}
 1 Tonne CO₂ = c.8m cube in volume ~ a small house

LULUCF = Land Use, Land Use Change, Forestry

Source: [2025 UK greenhouse gas emissions: provisional figures - statistical release - GOV.UK](#), Greenhouse gas emissions by TES sector, UK, 2025 (%)

Impact of Waste on Climate Change

2024 UK Waste Territorial GHG emissions (MtCO2e)



Main GHG emissions

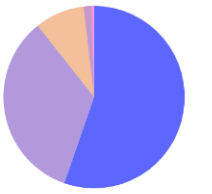
-From collection, treatment and disposal

- Methane
- Carbon Dioxide
- Nitrous Oxide.

Beyond GHG

- Air, waste and groundwater contamination
- Resource depletion
- Health and environmental hazards

Landfill: The largest source of waste sector emissions.



c.50% of Waste to Landfill is Biodegradable



- Decades of reductions
- Still largest UK source of waste emissions

Organic waste generates **methane** when decomposing

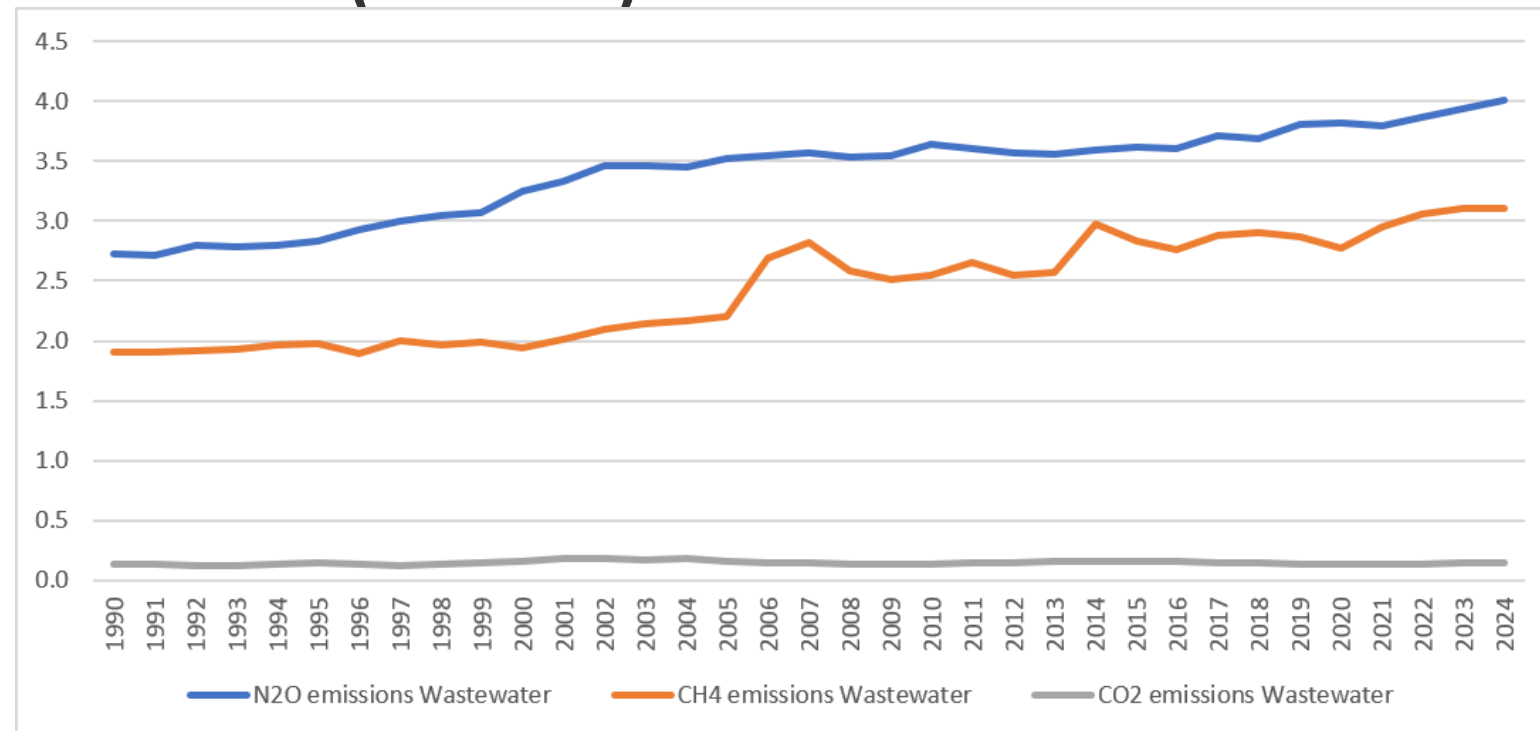
Key emission: **Methane**

- Reduce food waste generation
- Improve food waste collection.
- Increase recycling and organic waste treatment
- Promoting waste hierarchy principles: Reduce, Reuse, Recycle, Recover, Dispose

Biodegradable municipal waste to landfill, UK and country split, 2019 to 2023 (thousand tonnes): [UK statistics on waste](#)

Wastewater Emissions

Methane, carbon dioxide and nitrous oxide from wastewater (MtCO₂e)



Key emissions:

Nitrous Oxide

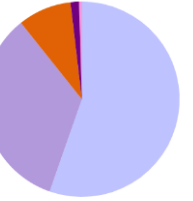
- Covering and containment
- Advanced anaerobic digestion

Methane.

- Real-time process control
- Methane leak detection and biogas recovery

Chart: Final UK Territorial Greenhouse Gas Emissions Statistics 1990-2024 [final-greenhouse-gas-emissions-tables-2024.xlsx](#)

Organic Waste: Composting and Anaerobic Digestion



Composting and AD generates significantly lower GHG emissions than landfills.

Methane

- Minimise methane leakage through routine leak detection and repair
- Maintaining good aeration (regular turning, forced air aeration systems, avoiding excessive pile size) - composting

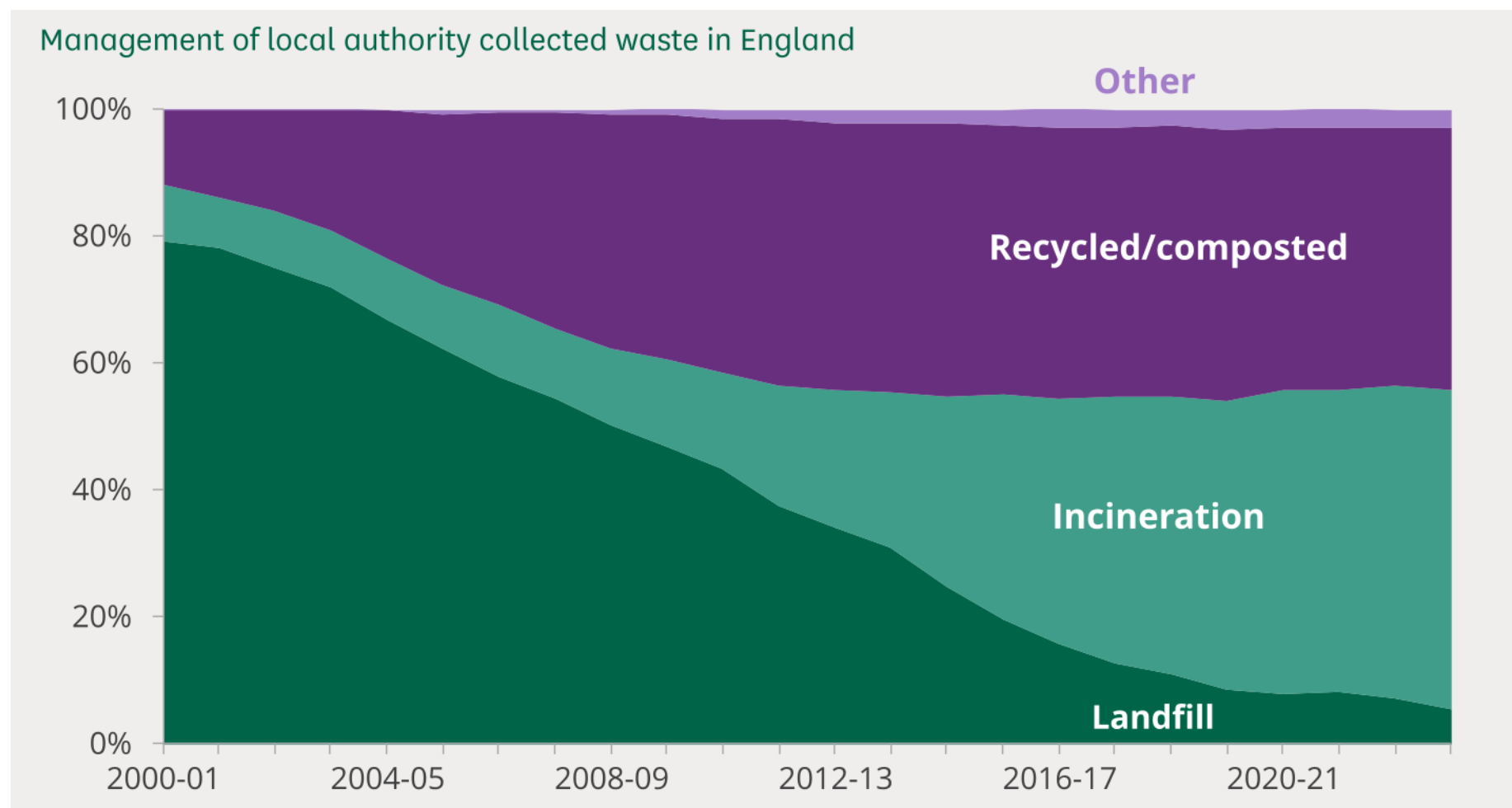
Nitrous Oxide

- Optimise carbon to nitrogen ratio by balancing feedstocks – composting.
- Better digestate management

Image source: [Introducing: Compost Works | Transition Liverpool](#) ; [Anaerobic Digestion Strategy and Action Plan](#)

Incineration and EfW: Climate Impacts and Trade-offs.

Share of municipal waste incinerated exceeded by 50% in 2023-24.



Incineration generates CO₂ emissions through combustion of waste (plastics and synthetic material from fossil fuels).

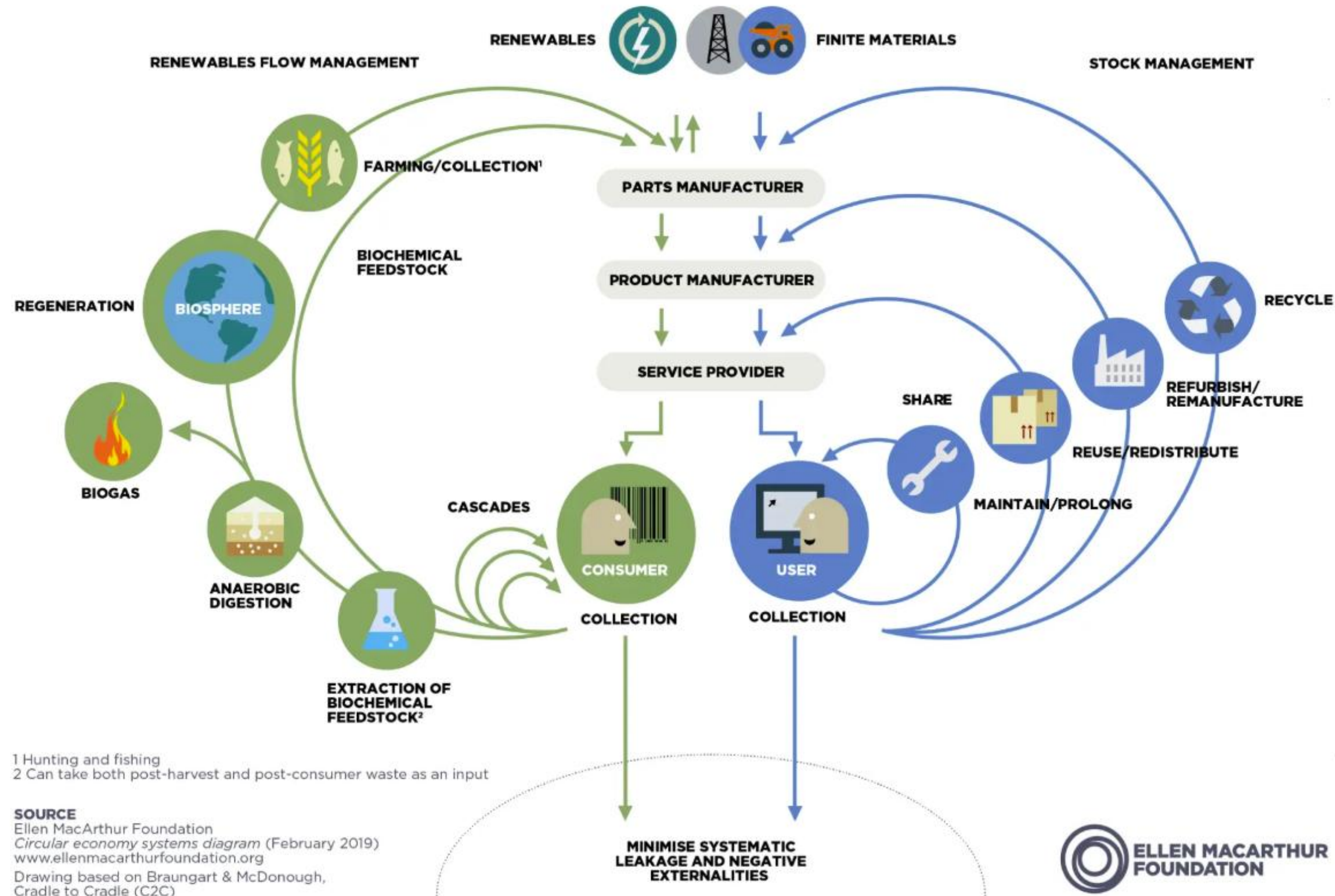
Carbon dioxide

- Expanding separate food waste collection
- Reduce plastic in residual waste
- Prioritise segregation at source

Energy from Waste (EfW) can reduce landfill dependence but still generates greenhouse gas emissions.

Way ahead: From Linear to a Circular Economy

The greatest climate benefit comes from preventing waste before it enters the waste management system.



Additional References

- [Updating wastewater treatment pathways for the Seventh Carbon Budget \(Arup\) - Climate Change Committee.](#)
- Ellen MacArthur foundation on circular economy: [The circular economy in detail | Ellen MacArthur Foundation](#)
- [Incineration of waste in England - House of Commons Library](#)
- [Anaerobic Digesters: A UK Guide for 2026](#)

Thank You!

-Questions-

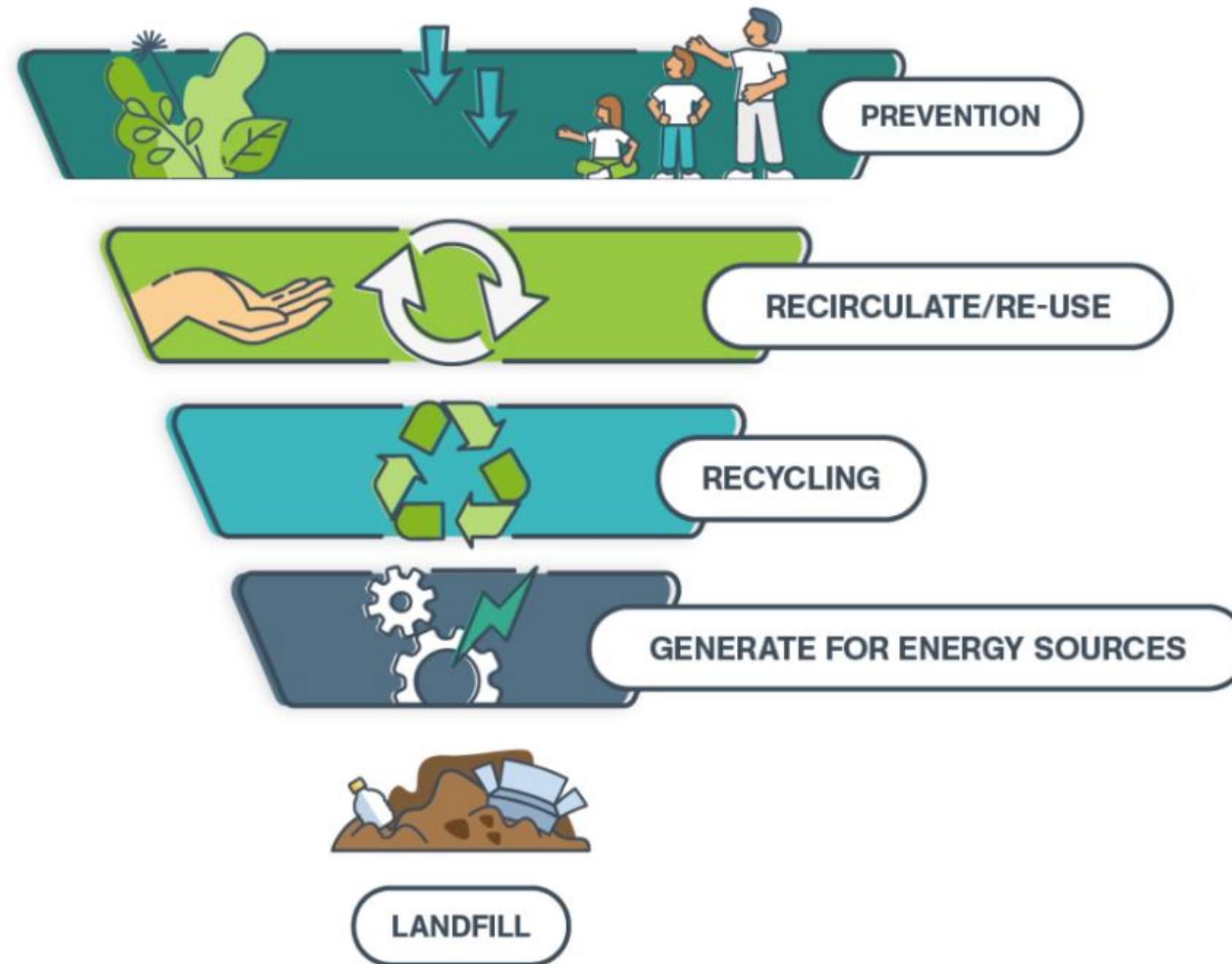
21/07/2026

Note: This **Carbon Awareness Training** is a high-level summary of select parts of the wider climate topic. For full “Carbon Literacy”, the [Carbon Literacy Trust](#) accredit the gold-standard “[Carbon Literacy Programme](#)” widely available through different providers, including the LCRA.

CIRCULAR ECONOMY

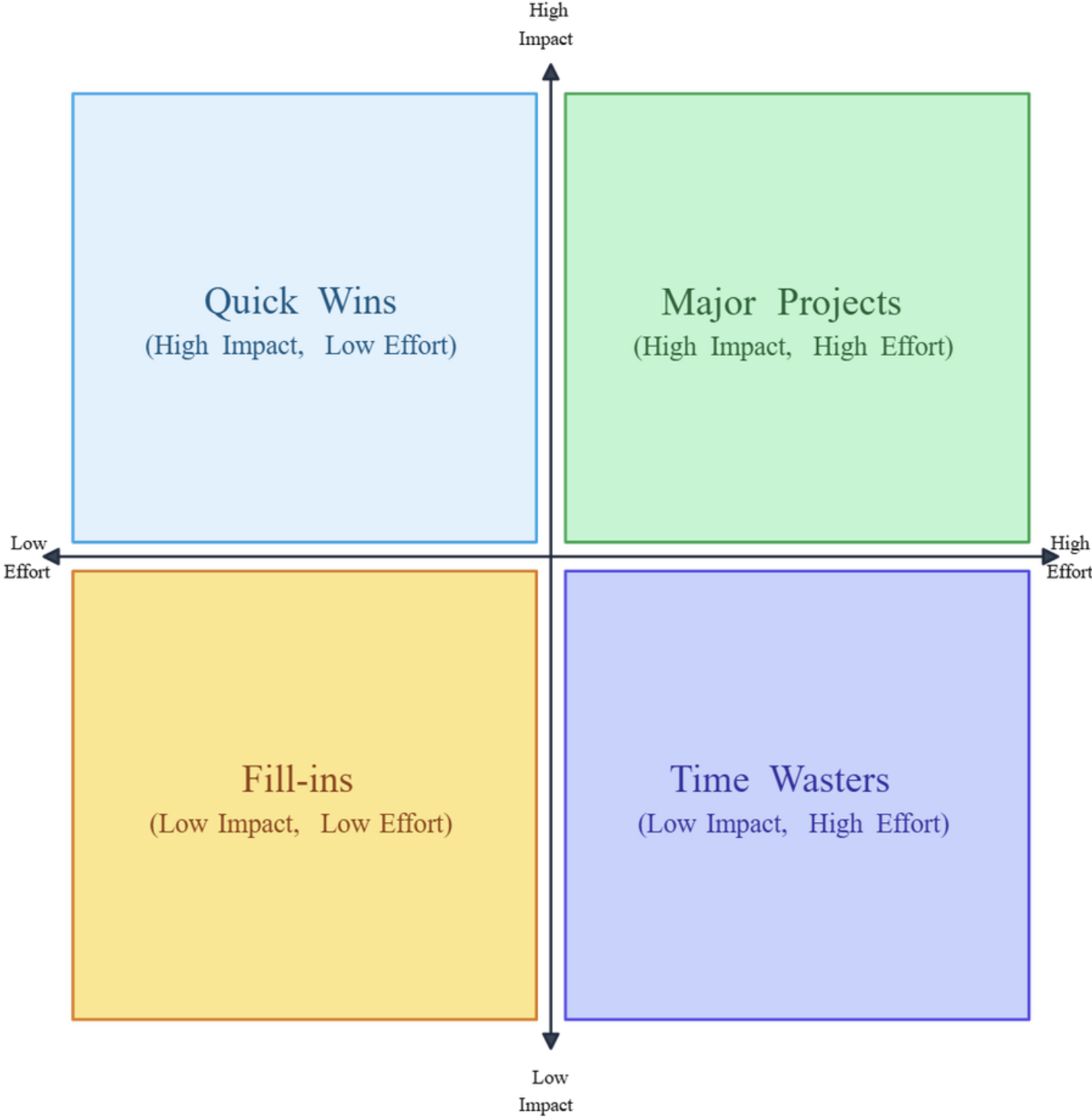


Waste Hierarchy



- What is the most wasteful material in your organisation?
- Can you come up with 5 different ways to stop this from going into the residual bin?

What do our solutions require to see an impact?

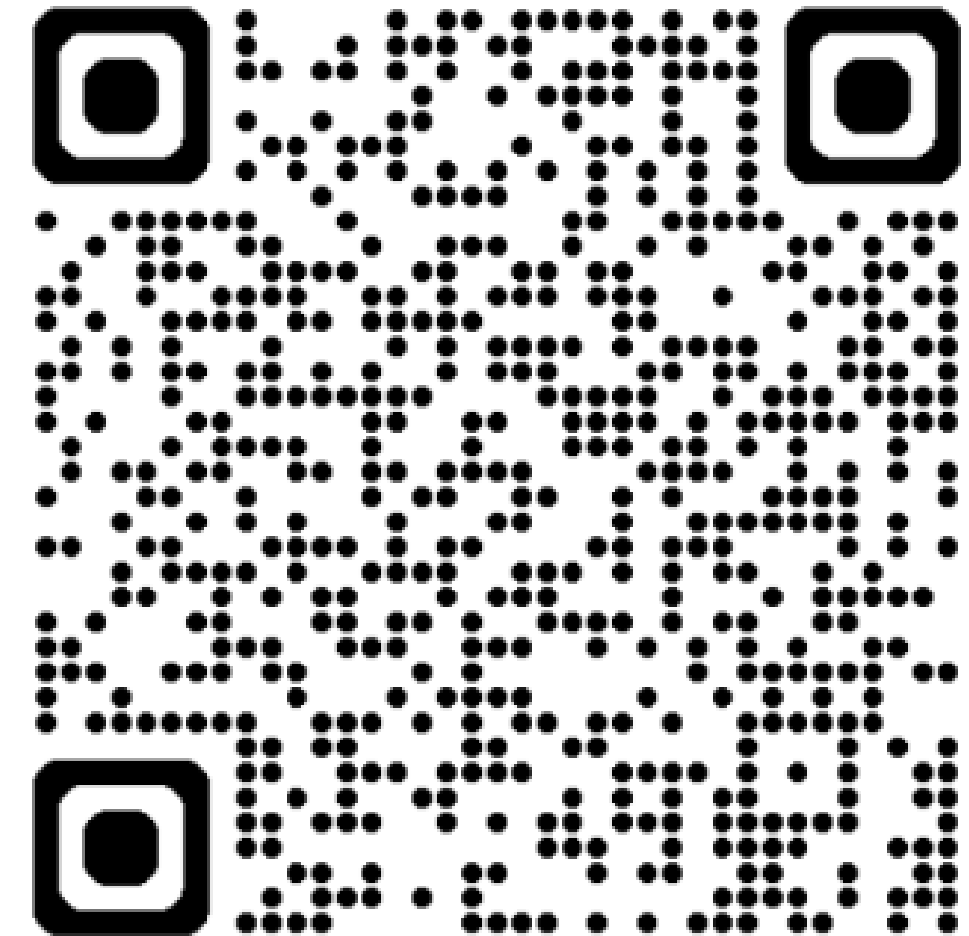


Product life cycle

- The solution to this problem must be sought in the life cycle of materials.
- Energy and materials are consumed at each phase in the cycle.
- These are assessed by the technique of life-cycle analysis (LCA).



Circular Living Segmentation



Let's find out what segment you are

Segment 1: Get the why, not always the how. Think Green and big consumer



Segment 2: Give the planet a chance. Green and acting on it



Segment 3: Pressured providers. Under pressure greens



Segment 4: The strong, silent type. Actions not words, quietly green



Segment 5: Local, not Global. Concerned about litter and fly tipping



Segment 6: Why should I care? Disengaged or indifferent



Segment 7: Green for the 'gram. Big consumers; words, not action



Segment 8: Got the actions, different motive. Climate rejectors but acting sustainably



Benefits of a Circular Economy



Community Value

Connecting local businesses, charities, residents and public services.



Jobs and skills

Opportunities in reuse, refurbishment, remanufacture, leasing and sharing.



Save money

- Products will last longer
- Reduced disposal costs



Protect health & nature

- Reduce air, water and soil pollution
- Improved use of resources

Examples: Reuse, redistribution, refill, renting and repair



Liverpool Tool Library

Community-based tool rental.



Eco Refill

Zero Waste Refill shop.



Quilt Stitch Social

Textile reuse and recycling workshops.



Sustainable Starts

Reusable toy and nappy library.

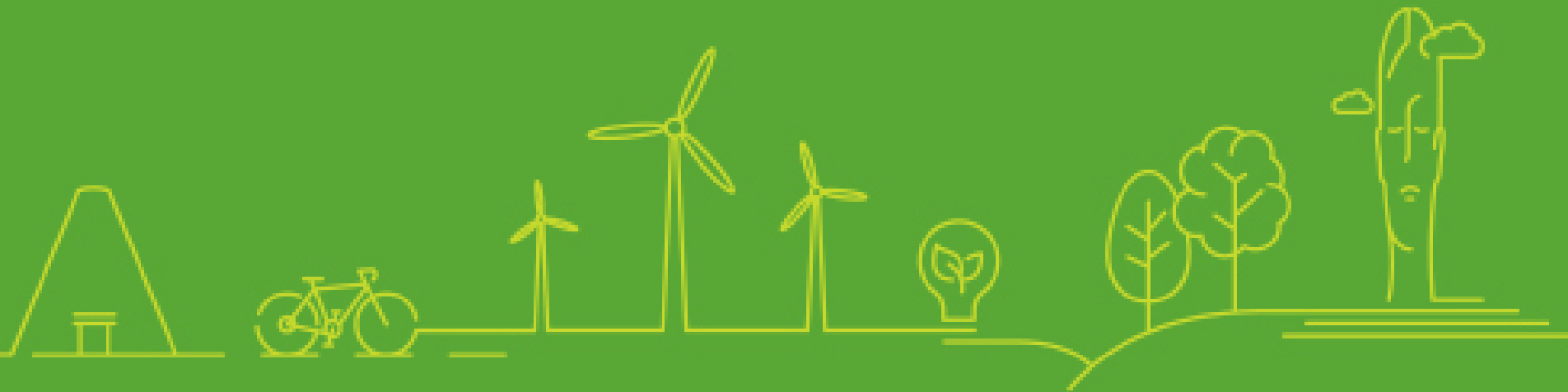
Thank you!

Any questions?

Email: cec.lcr@merseysidewda.gov.uk

Bringing the Circular Economy to Life: Engaging Residents Through Social Media

**SUSTAINABLE
ST HELENS**





St Helens Borough Council Recycling Team

- Helping residents recycle correctly
- Promoting waste reduction and sustainable behaviours
- Delivering engaging communications and community outreach
- Supporting a cleaner, greener St Helens.







Why Recycling Matters

- A key enabler of the circular economy
 - Keeps valuable materials in use for longer
 - Reduces waste and demand for new resources
 - Relies on informed and consistent public participation
-
- **Effective communications help translate circular economy principles into everyday behaviours.**

 **St Helens Borough recycles**



Our Challenge

- **Turning Awareness into Action**
- A circular economy depends on residents making the right choices every day. However, in a crowded digital world, recycling messages can easily be overlooked.
- Our challenge was simple:
- **How do we create engaging content that captures attention, inspires action and helps keep valuable materials in the loop?**



Our Approach

- **Creating content that is:**
 - Platform-specific
 - Clear and accessible
 - Short and engaging
 - Relevant to everyday life
- **Our aim:**
 - To encourage positive recycling behaviours and support the circular economy through effective digital communications.



green bag preparing for the
Netflix documentary about its
brown paper trauma

"which camera
do I look at?"



POV: the social media girlie
hyping the bin man up for yet
another content day



"Where do I put my wrapping paper,
gift bags and Christmas cards?"



Brown bin?
✓✓✓

Blue or green bag?
XXXX

Wrapping paper, gift bags
& Christmas cards can't be
recycled in St Helens Borough
- pop them in your brown
bin instead pls 🙏

OUR RESULTS

JUNE 2025 – JULY 2026



TIKTOK

1.2 MILLION
VIEWS

42,206
ENGAGEMENTS



INSTAGRAM

108,854
VIEWS

1,318
ENGAGEMENTS



FACEBOOK

611,472
REACH

1.4 MILLION
VIEWS

11,521
ENGAGEMENTS



OVER 2.7 MILLION VIEWS

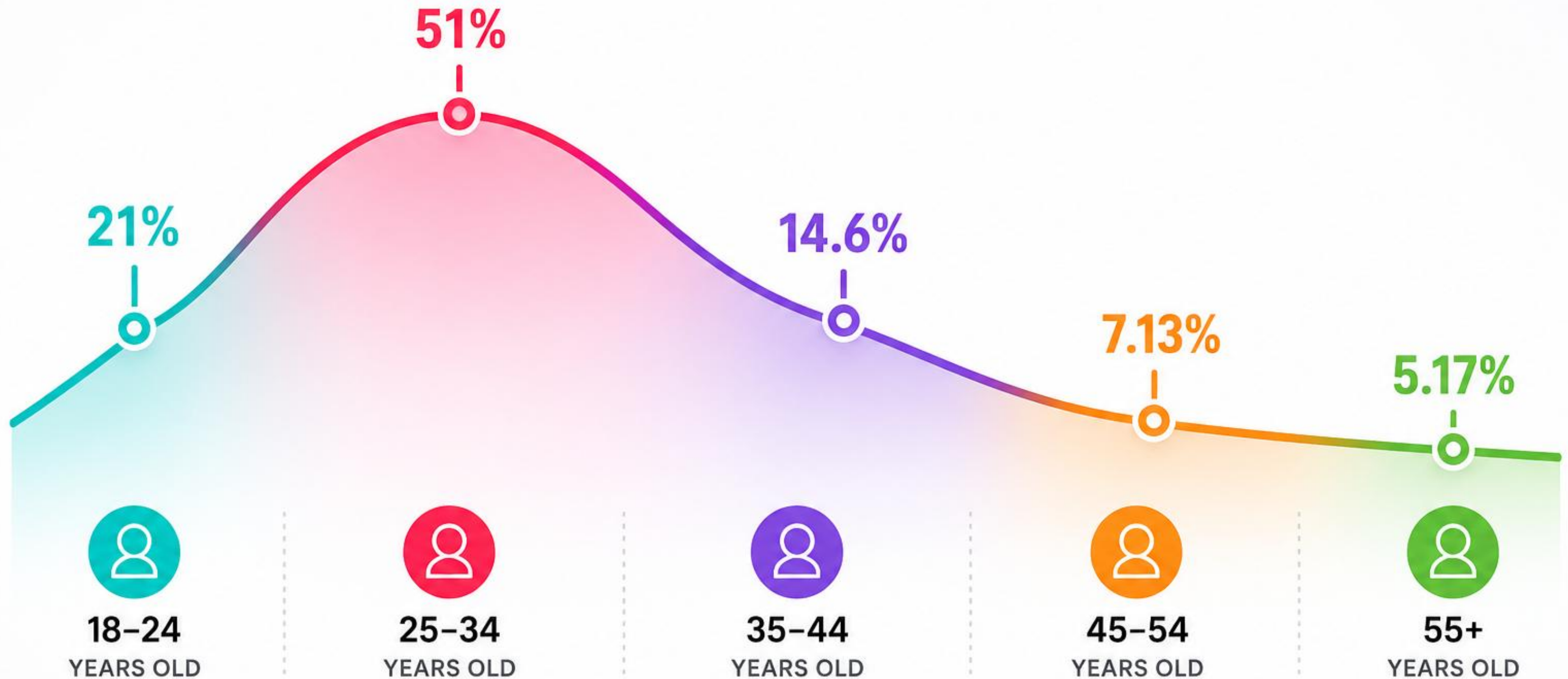
ACROSS OUR RECYCLING CONTENT





TIK TOK DEMOGRAPHICS

% OF VIEWS BY AGE GROUP



Based on % of TikTok views by age group.



We Are Nationally Recognised!

LARAC 2025 Winners - Best Waste Minimisation or Prevention Project





Supporting the Circular Economy in St Helens

- Every recycling decision made by our residents contributes to a more circular borough
- Through clear, engaging communications, we help people to:



**Recycle
correctly**



**Reduce
waste**



**Keep valuable
materials in
circulation**



**Support a
cleaner, greener
St Helens**



Communicating for Meaningful Action: A St Helens Perspective



**Reach people
where they are.**



**Keep messages
simple and
actionable.**



**Create engaging
content that
captures
attention.**



**Use social media
to broaden
engagement.**



**Small
communications
can inspire
lasting change.**

Thank You For Listening!
Any Questions?

**SUSTAINABLE
ST HELENS**



Thank You

- **Email:** cec.lcr@merseysidewda.gov.uk
- **Website:**
<https://www.zerowastelcr.com/circular-economy-club-liverpool-city-region/>
- **Feedback survey:**
<https://forms.cloud.microsoft/e/KuqCmKkpAt>

CEC LCR Lunch & Learn Workshop - Post-event feedback survey

