



The Circular Economy - an essential part of a low carbon transition:

London's theory and practice

James Close

Head of the Low Carbon Circular Economy Programme

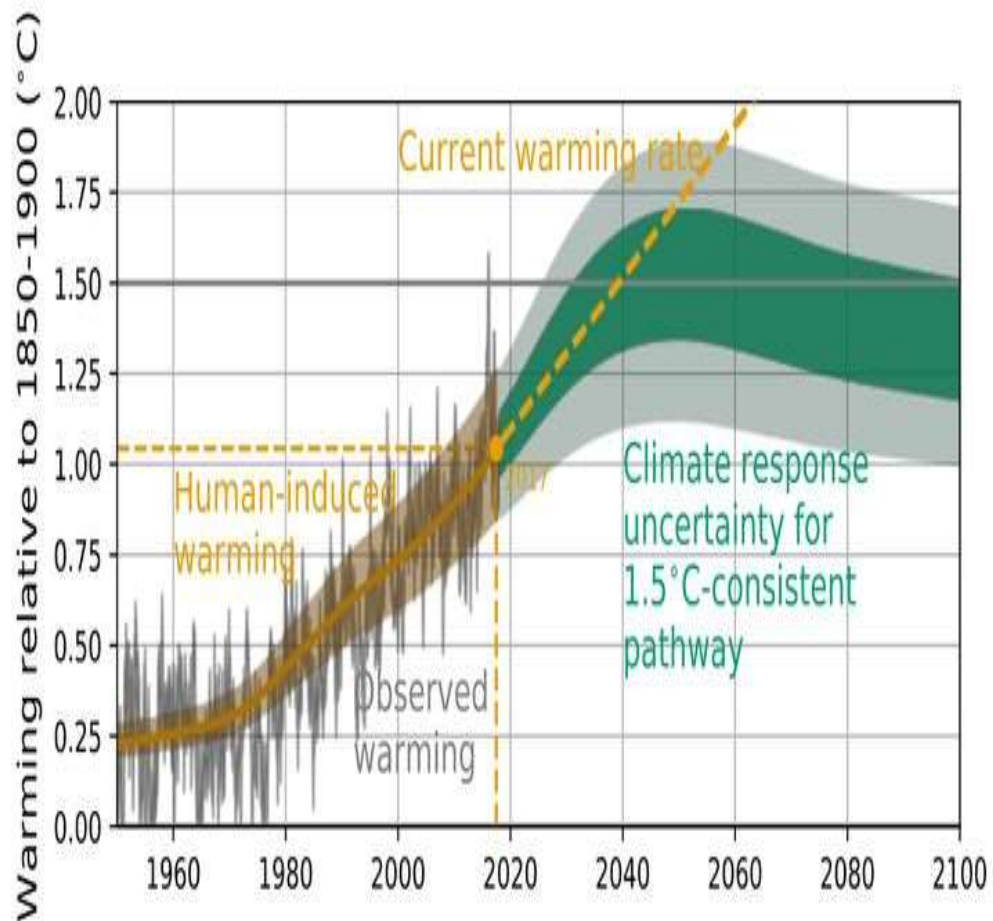


@LWARB



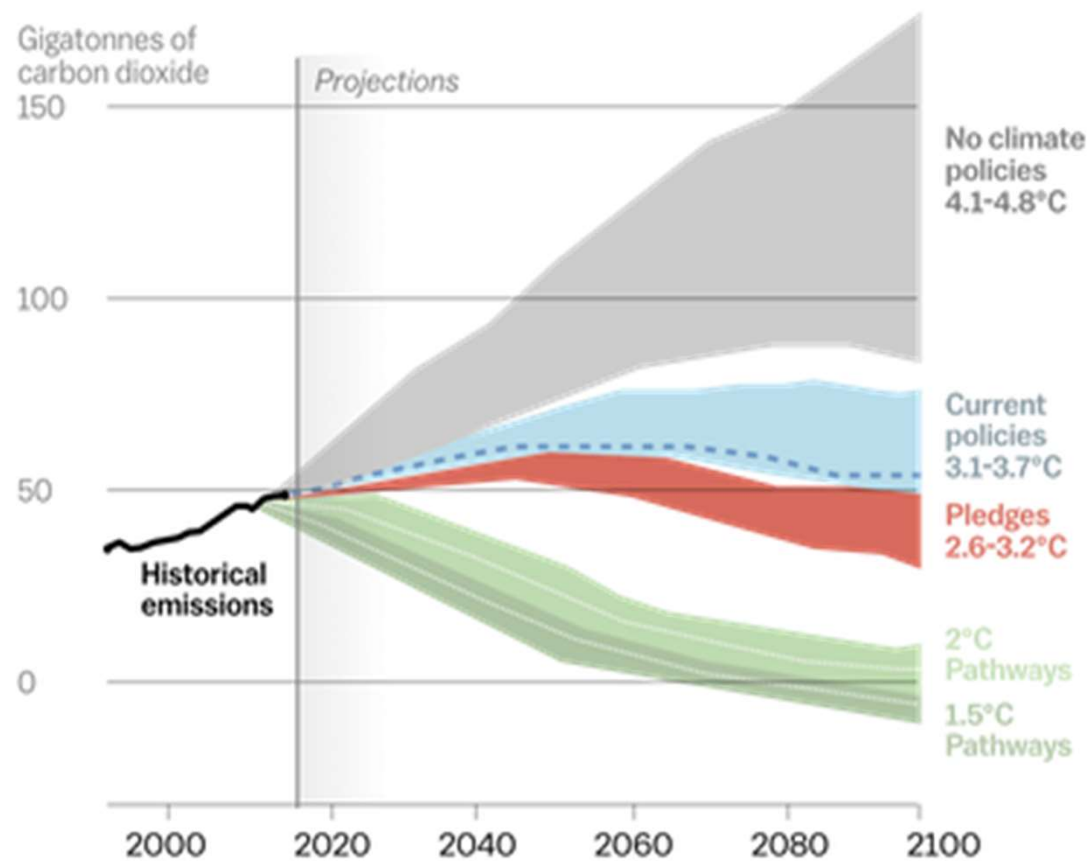
LWARB

Current Trajectory of Warming

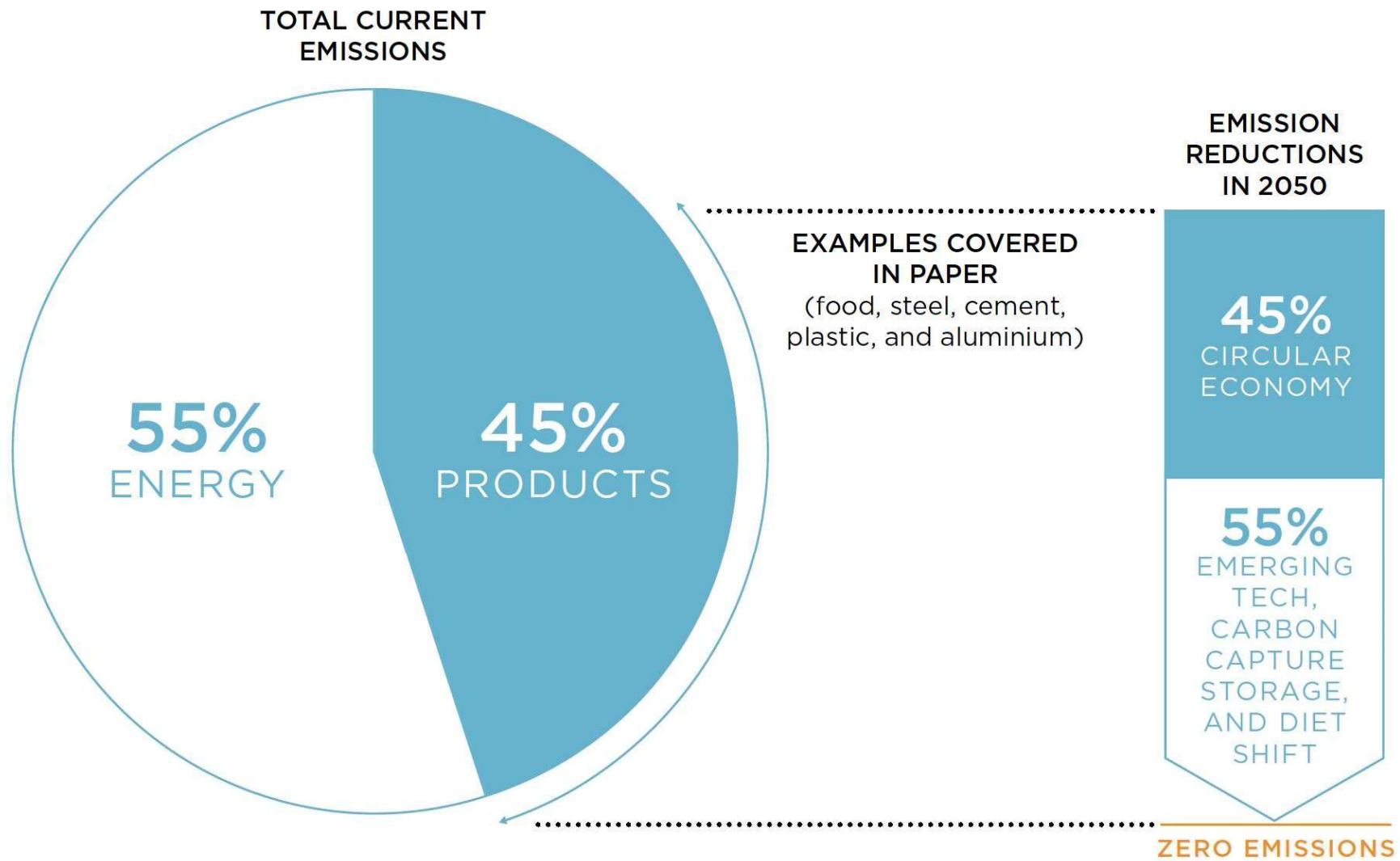


Source: IPCC Special Report on Global Warming of 1.5°C, Chapter 1 - Technical Annex 1.A, Fig. 12

Global greenhouse gas emissions

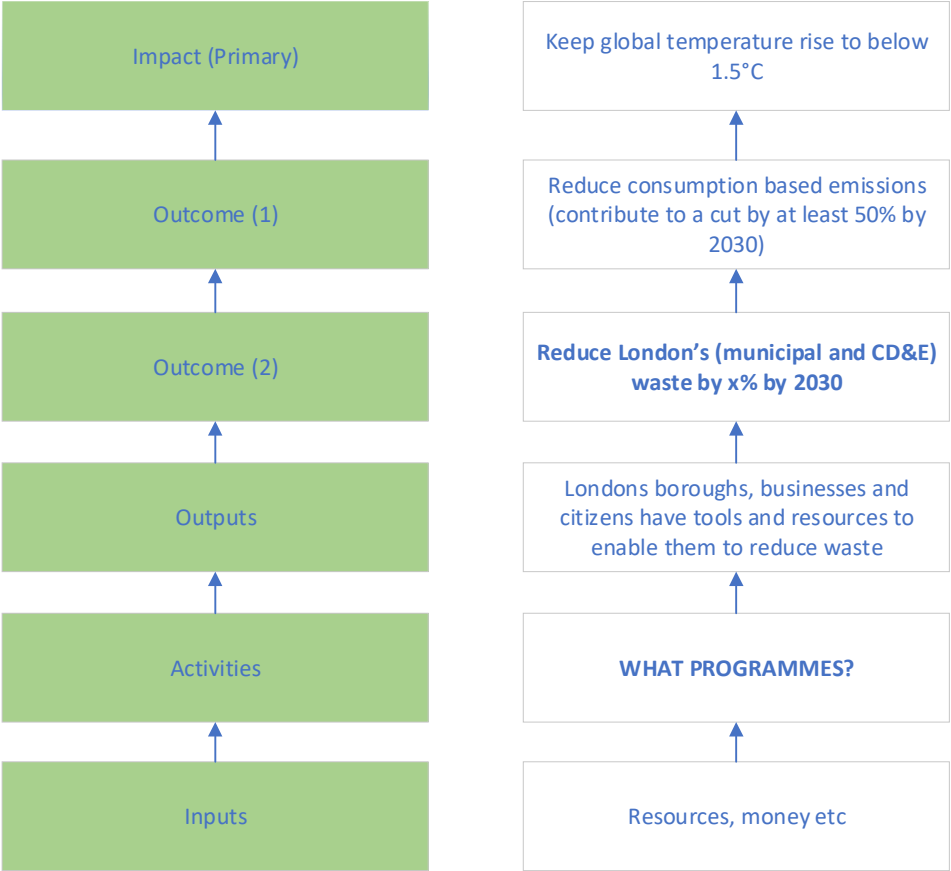


Consumption Based Emissions: Tackling Overlooked Emissions



https://www.ellenmacarthurfoundation.org/assets/downloads/Completing_The_Picture_How_The_Circular_Economy_Tackles_Climate_Change_V3_26_September.pdf?utm_source=newsletter&utm_medium=email&utm_content=2019-10-07&utm_campaign=greenbuzz

Theory of Change



THE FUTURE OF URBAN CONSUMPTION IN A 1.5°C WORLD
C40 CITIES
HEADLINE REPORT
UNIVERSITY OF LEEDS | ARUP

Climate change: Big lifestyle changes 'needed to cut emissions'
Roger Harrabin
BBC environment analyst
4 hours ago | Science & Environment

People must use less transport, eat less red meat and buy fewer clothes if the UK is to virtually halt greenhouse gas emissions by 2050, the government's chief environment scientist has warned.

Prof Sir Ian Boyd said the public had little idea of the scale of the challenge from the so-called **Net Zero emissions target**.

However, he said technology would help.

The conundrum facing the UK - and elsewhere - was how we shift ourselves away from consuming, he added.

In an interview with BBC News, Sir Ian warned that persuasive political leadership was needed to carry the public through the challenge.

Asked whether Boris Johnson would deliver that leadership, he declined to comment.

Mr Johnson has already been accused by environmentalists of talking up electric cars whilst reputedly planning a cut in driving taxes that would increase emissions and undermine the electric car market.

- **UK commits to 'net zero' emissions by 2050**
- **Government 'like Dad's Army' on climate change**
- **Climate change: Where we are in seven charts**

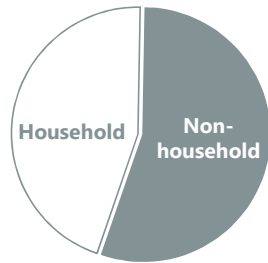
Household emissions in 1990 2017 and 2050

London's Policy Landscape

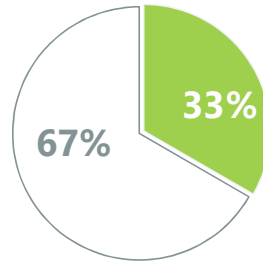
- Ambition to be the leading low carbon circular city
- London Environment Strategy and London Plan (final expected spring 2020)
- In 2016, local authorities collected 3.7 million tonnes of waste – enough to fill more than 1,500 Olympic-size swimming pools
- Recycling rates have dropped back down to the levels seen in 2010
- In 30 years, local authorities will need to collect an extra one million tonnes of waste - equal to an additional 500,000 refuse trucks of rubbish each year
- Circular Economy Statement proposed for all major developments



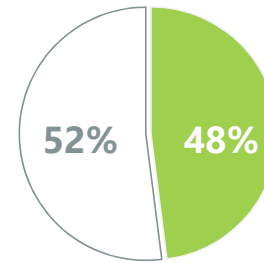
London's municipal waste today



7 million tonnes per annum

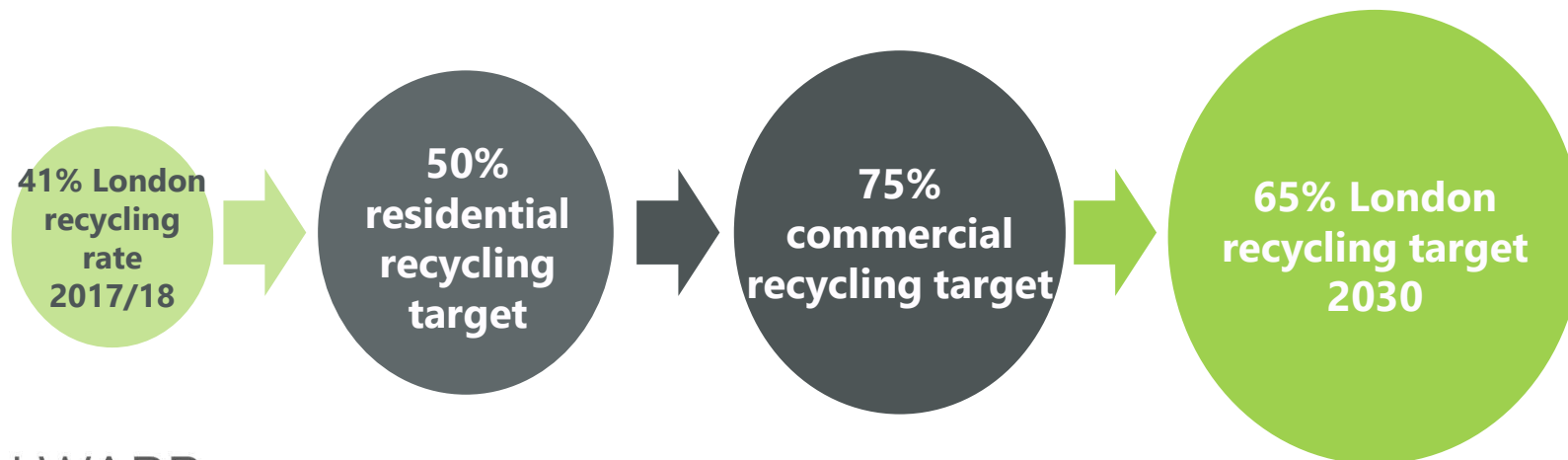


33% recycling rate household



48% recycling rate non-household

London's Environment Strategy





Where have we come from?

Originally set up with a focus on waste infrastructure and recycling, LWARB has traditionally had a strong audience amongst London's boroughs and waste management stakeholders.

This has meant that the language and priorities of policy makers and 'end of pipe' processes has led our communications – but over the past three years, this has started to change as our focus has expanded into both the inner and outer loops of circular economy.

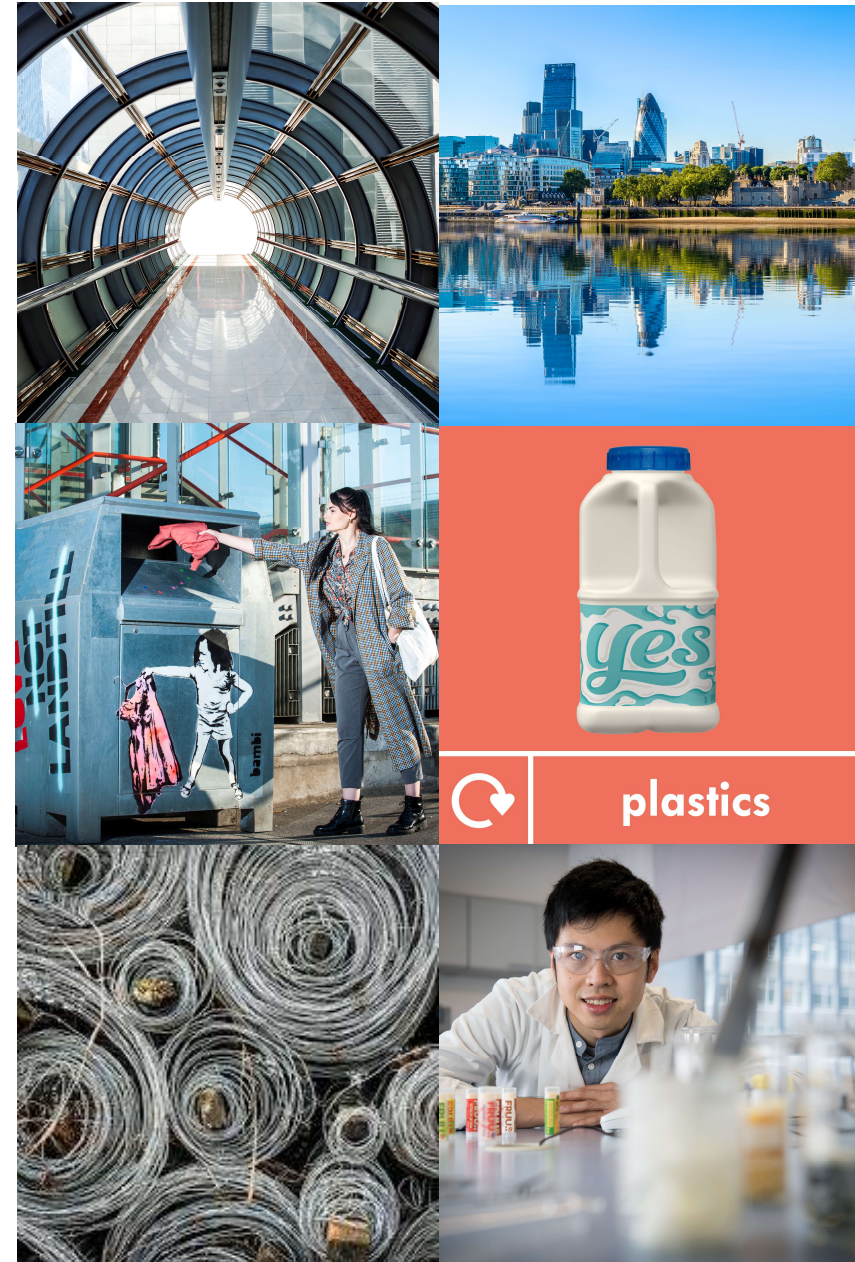
How are we set up?

LWARB has three objectives, prescribed by the GLA Act:

- To promote and encourage, so far as relating to Greater London:
 - the production of less waste;
 - an increase in the proportion of waste that is re-used or recycled and;
 - the use of methods of collection, treatment and disposal of waste which are more beneficial to the environment.

For the purpose of achieving its objectives, the Board may provide financial assistance to any person towards or for the purposes of:

- the provision of facilities for or in connection with the collection, treatment or disposal of waste produced in Greater London;
- conducting research into new technologies or techniques for the collection, treatment or disposal of waste;
- securing, or assisting in securing, the performance of any function of a London borough council or the Common Council relating to waste.





Circular London



“This is LWARB’s vision for London – a circular city which capitalises on these opportunities to become a more resilient, resource-efficient and competitive city of the future (2017).”



Built Environment



Food



Textiles



Electricals



Plastics

Sector-Based Approach



The circular economy opportunities in the built environment will add £3-5bn to GDP by 2038.

Example interventions include:

- innovations like modular construction.
- more effective utilisation of buildings.
- design for building disassembly, material management and re-use.



The circular economy opportunities in the textiles sector are over £1bn by 2038.

Example interventions include:

- increasing the lifetime of clothes through design and innovative technologies.
- increasing the usage of clothes through renting or leasing.
- increasing the re-use, repair and recycling of clothes via incentivised return schemes.



The circular economy opportunities in the plastics sector will be at least £200m by 2038.

Examples interventions include:

- activities to reduce plastic use.
- increasing the recycling rate.
- innovative recycling technologies.



The circular economy opportunities in the food sector will add £2-4bn to GDP by 2038.

Example interventions include:

- raising consumer awareness and knowledge.
- reducing avoidable food waste.
- using unavoidable food waste to create energy/compost.



The circular economy opportunities in the electrical and electronic equipment sector will be at least £900m by 2038.

Example interventions include:

- sharing, renting and product as service business models.
- increased re-use/effective recycling rate.
- designing better products that enable longer product life.

Working in partnership

- Greater London Authority
- 33 London Boroughs
- National Government
- EU
- WRAP
- Businesses
- Delivery partners
- Investors



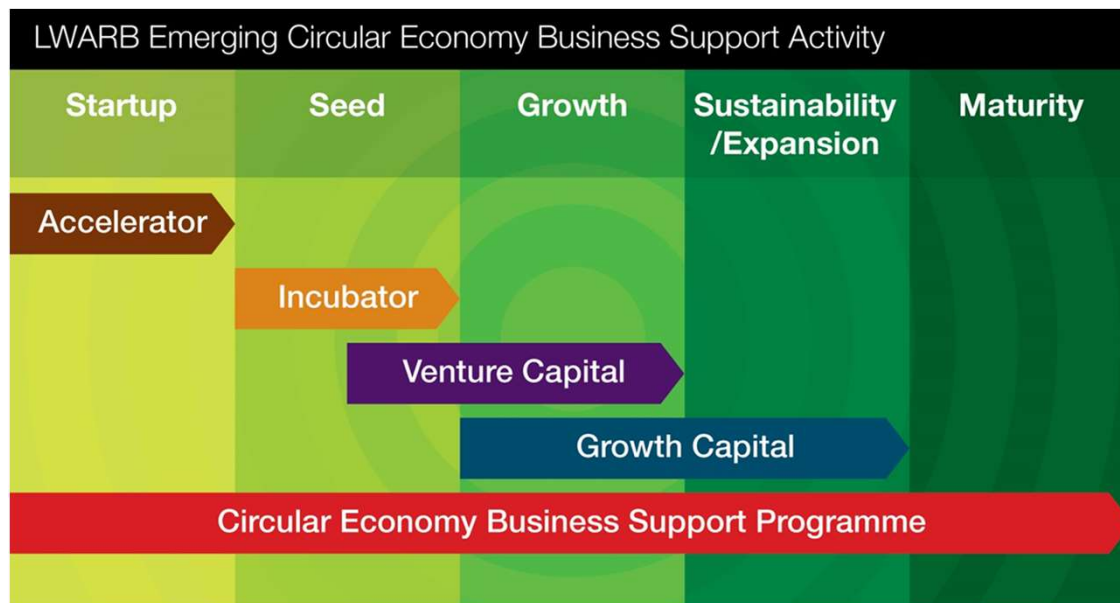
Promoting behaviour change

- **London Recycles:** 55% of target audience have seen the campaign in the last year and remember the messages. 21% of our target audience have both seen the campaign and say they are recycling more as a result.
- **#LoveNotLandfill:** We have no really compelling behavioural stats around this one, but we have research which shows that 32% of 16-24 year old Londoners recognise and know about the campaign.
- **Small Change, Big Difference (TRiFOCAL):** Borough waste comp analysis pre- and post-project shows an average 9% reduction in food waste arising in the target boroughs we've worked with.



Commercial potential

We work with businesses and investment funds to provide support and finance to business.





Advance London

Circular SME Business Support programme

Helping circular SMEs to grow and succeed and linear businesses to transition to circular models.

~150

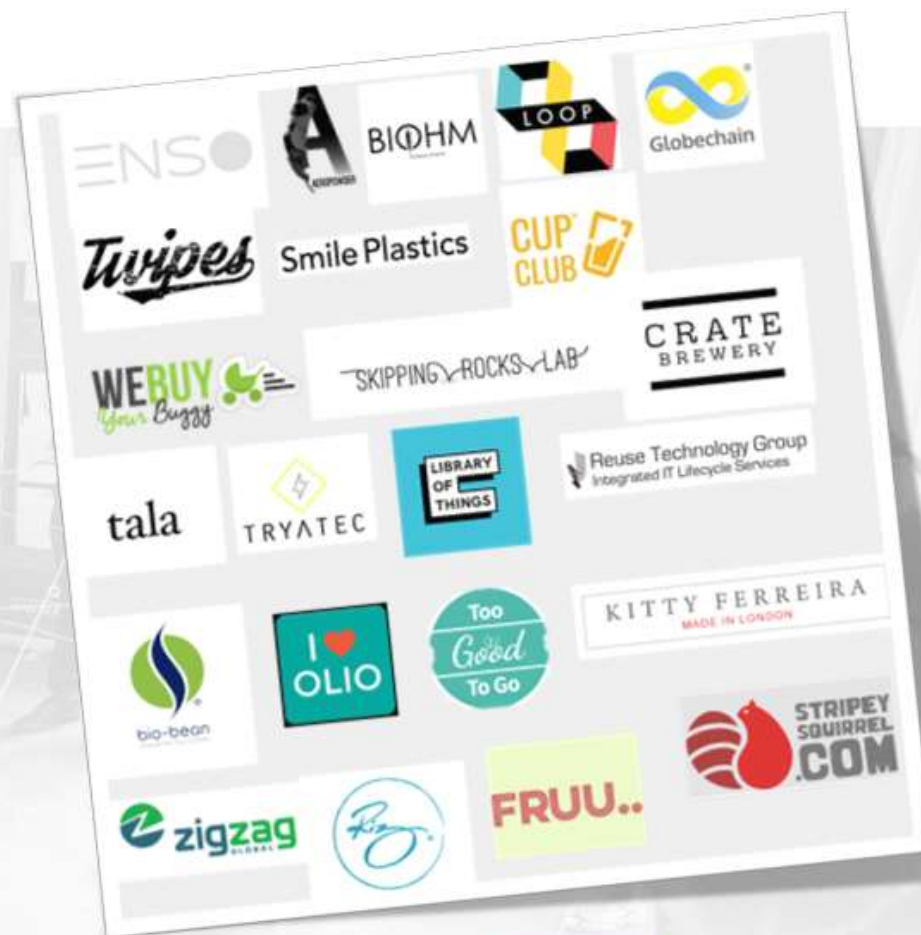
Businesses in the portfolio

30

Jobs created

20

Products launched



LWARB



European Union
European Regional
Development Fund

CIRCULAR LONDON ACCELERATOR

Powered by



LWARB
London Waste and Recycling Board



CARBON
TRUST

globalHOM
Live Life Your Way

Chip[s] Board®

 Sustainability Cloud

Qflow

BIOHM
the future of home

RAPIERE 

 LWARB

Our circular business framework



Advance London
V2 - July 2019

Defining audiences

Who?	Why do we need them?	What do they need from us?
Partners & London waste authorities	We need their vision and support, and commitment to help us deliver against the direction they set. We need access to their networks & resources.	To help them reduce waste and increase recycling in the most efficient way, share learning and promote London as a global circular city.
Corporates & funders (current & potential)	We need partnerships to deliver real change. We need business insight and learning. We need funding.	To help them thrive through effective resource management and to become leading circular businesses.
Waste industry & sustainability community	We need to retain our expert industry knowledge and networks through working with them. We need their support, collaboration and ability to deliver projects.	To involve them in industry transformation work.
SMEs & start-ups	We need their creativity. We need to inspire innovators and entrepreneurs to grow circular business in London.	To provide them with networks, expertise and support to grow.



Showcasing London

In order to **raise the profile** of London's achievements and LWARB's expertise on cities amongst priority audiences, we will:

Build our presence

- Attending events (globally) as speakers and panelists
- Hosting seminars and workshops on topical and technical themes
- Proactively placing articles and interviews in targeted media

Grow CE Week

- Hosting a week-long celebration of CE in London every June
- Growing reach and impact through targeted PR and promotional activity
- Targeting businesses and decision-makers – regional, national and multi-national

Publish annual (impact) report

- Publishing annual review of London, LWARB and programme achievements
- Using as credentials document for new partnerships
- Sharing proactively through networks, social media and PR

Implications for Barcelona

- “Best location for the circular economy”
- 6 areas of action - RESOLVE
- Initiatives and organisations related to the Circular Economy: public authorities that drive projects and initiatives, organized clusters, universities, technology centres and other stakeholders, trade shows and International, networks
- Effective mapping of the circular economy
- Investment in the circular economy, incentives and tax breaks
- International collaboration



Some lessons

- Who's got the skills to invest?
- How do targets drive strategy and scope?
- What's optimal and what's realistic?
- What are the international collaborations?
- Where is the data and analytics?
- Who can help and how?

