
Circular cities in action: Driving progress through policy

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Acknowledgements

The main body of this report was written by Accelar¹ and ReLondon², with ReLondon authoring the executive summary.

ReLondon

ReLondon (formerly known as the London Waste and Recycling Board) is a partnership of the Mayor of London and the London boroughs to improve waste and resource management and transform the city into a leading low carbon circular economy.

ReLondon puts the reduction of consumption-based emissions of CO₂e at its core, enabling an accelerated and just transition to a circular economy and placing a renewed emphasis on reducing waste and increasing recycling.

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Executive summary

Cities are the engine room of the circular economy, where government, business and citizens co-exist at a scale to enable powerful collaboration and partnerships. Each of those stakeholders must play their part in making circular economy a reality, with governments providing an environment in which businesses are able and incentivised to innovate and provide genuinely sustainable products and services to large numbers of consumers.

Government – at a national, regional and local level – is therefore a critical player in accelerating the transition to a circular economy, and the Mayor of London has recognised its importance over the last five years by incorporating its principles into key London strategies.

London already has a fledgling but burgeoning circular economy, where businesses and community enterprises are using innovative reduce, reuse, repair, rent, share and recycle models of working. But without policy in place to encourage or even mandate circularity, progress will not be made at the pace necessary to mitigate the global impacts of the climate emergency.

This report presents the results of research carried out by ReLondon, between October 2020 and April 2021, into current circular economy policy being applied in London as well as good practice from other global cities. It provides examples to inform and inspire future circular economy policies by cities both within the UK and around the world.

The policies presented were identified through desk-based research, interviews, workshops, and input from an advisory group of experts, using the Ellen MacArthur Foundation's urban policy levers framework to review and identify good practice.

These policy examples are presented in a series of tables covering:

- Five of the urban policy levers from the Ellen MacArthur Foundation's framework: roadmaps and strategies (parts A and B); convening and partnering; capacity building; urban planning; and financial support.
- A review of circular economy policies in relation to the five focus areas identified within London's circular economy route map: the built environment; food; textiles; electrical and electronic equipment; and plastics. These five sectors are chosen for their social, economic, and environmental importance to London, and the potential opportunities circular economy offers to these sectors.

Finally, the report provides examples of how London boroughs are embedding circular economy policies locally using the urban policy levers framework, illustrating the importance of sub-city policies in influencing areas such as local development plans, asset management and procurement.

While the report draws on good practice from around the world, it has at its core those policy areas identified as being particularly relevant for London. The policy landscape in London is complex: the capital has 32 borough councils plus the City of London, bodies which are responsible for the development of local policy and service delivery, but which must have regard to the Mayor of London's strategies.

As well as individual and local commitment to embed circular economy policies, London's boroughs are increasingly collaborating to contribute to city-wide circular economy policy. Working together through London Councils, they agreed a Joint Statement on Climate Change in December 2019, including a commitment to reduce consumption emissions by two thirds by 2030.

The Mayor of London and London Councils have also in the past year published the London Recovery Programme which outlines London's approach to 'build back better' after the COVID-19 pandemic. A Green New Deal is one of nine missions within the document and relates directly to the principles of a circular economy. Positive progress is being made and invested in across the capital to catalyse transformational change, and to mobilise boroughs, businesses and citizens to change their practices and behaviours in a way which makes a powerful contribution to addressing the climate emergency.

This report focuses purely on the policy aspects of that change and does not cover the multitude of other actions being taken across London and other cities to implement circular economy principles.

I. Introduction

Over the last ten years, the idea of a circular economy has gained recognition in cities and regions globally as a way to address climate change, and in particular consumption-based CO2 emissions, whilst providing a series of business models that allow us to thrive economically, with shorter, more robust supply chains. This is of critical importance now – following the COVID-19 pandemic – as many cities seek to build a green and fair economic recovery.

To transition to a circular economy requires systemic change across, or by, business, government, civil society, and individuals.

‘City governments have a unique ability to engage with multiple stakeholders from across sectors and catalyse action. This is key to the emergence in cities of circular economy opportunities, which require understanding, collaboration, and action within and between sectors.’

Ellen MacArthur Foundation, “City Governments and their role in enabling a circular economy transition”, 2019³

Policy is a vital part of the systemic change required for circular economy transition. Good policy creates the right environment for the circular economy to flourish, and signals intent to stakeholders, that this is an agreed/supported direction of travel. This signalling is important to businesses, investors, and funders, giving confidence, directing action and giving focus for others to build their circular economy work on.

Within this report, policy is taken to mean a rule or plan of action, especially an official one adopted, and followed, by government (regional or local) and enacted by public bodies.

Further evidence of the benefits of a circular economy approach such as social equity impact, greater independence from virgin material markets and accelerated emission reductions are presented throughout this report.

‘Policies that are aligned with circular economy principles can play a vital role in recovery packages by stimulating value creation and economic resilience. It is less wasteful and environmentally damaging and is not so critically dependent on global linear supply chains and cheap virgin raw materials’.

Ellen MacArthur Foundation, “The circular economy: a transformative COVID-19 recovery strategy”, 2020⁴

This report provides an overview of current circular economy policy being applied in London, as well as good practice examples of how it is being embedded into city policy from around the world. It should serve as a reference to help cities identify examples of how to further develop policy to support the transition to a circular economy. For reference a high-level summary of key international and national policy influencing London is included in Appendix A.

This report focuses on city wide circular economy policies which can reduce consumption-based emissions through waste avoidance, reduction or recycling. It primarily showcases examples of existing policies from cities, but on occasion, where good examples exist at a sub-city, regional, or country level which could be adopted by cities, these are also included. The key focus is on policies which can move London and other cities up the waste hierarchy and improve value obtained from material resources. The focus throughout is on materials and not energy or transport.

The Mayor of London sets an overall vision for London. The Mayor has a duty to create plans and policies for the capital including (but not limited to) the environment, business and economy, planning, housing and transport.⁵ Across London there are 32 borough councils and the City of London. These 33 bodies are responsible for the development of Local policy and service delivery. In some cases, London boroughs must also act in general conformity or alignment with the Mayor of London's strategies. As well as individual borough commitment to embed circular economy policies, boroughs are working together to contribute to city wide circular economy policy.

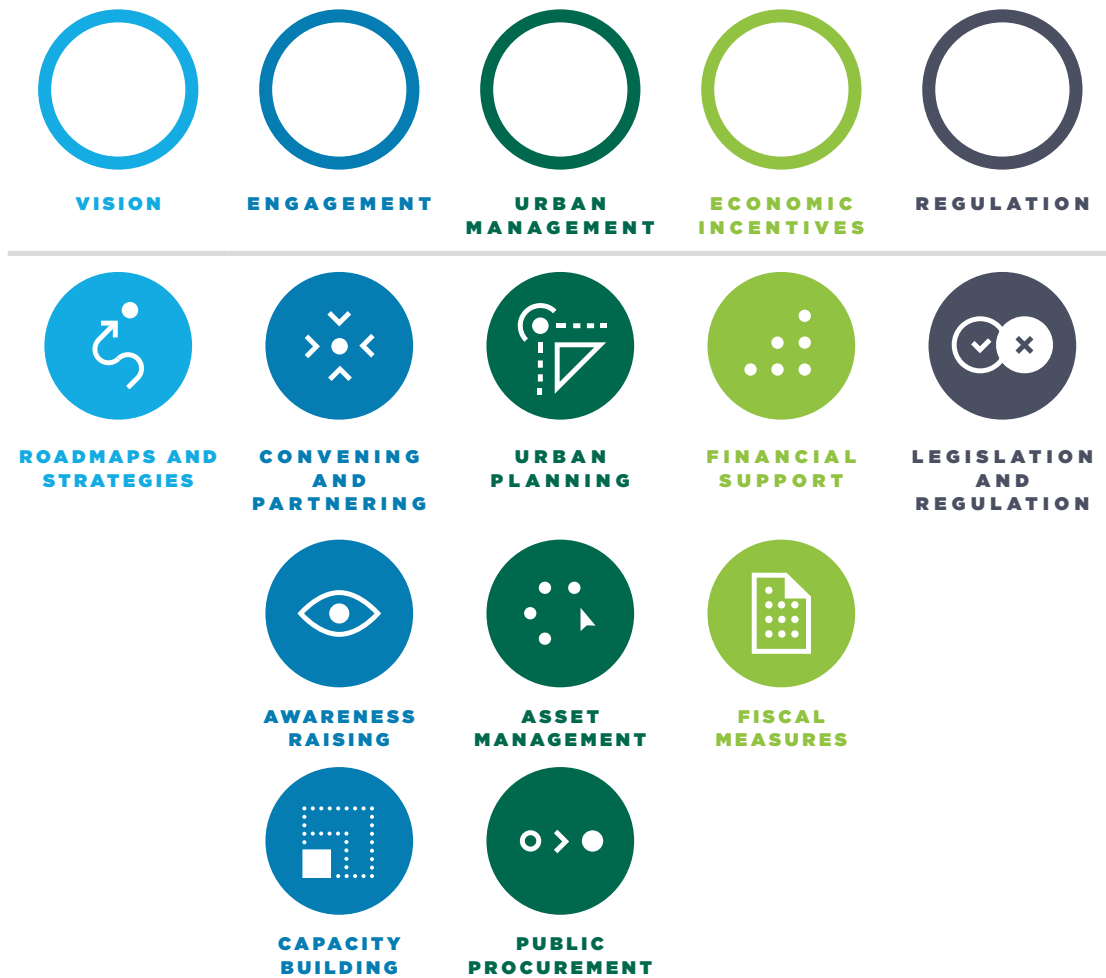
This report does not analyse the potential impact of the policy opportunities identified; rather it provides examples of how circular economy can be embedded into policy measures. Understanding the impact and measurement of circular economy policies is still in development, and beyond the scope of this report.

As the key focus of this report is upon the policies which cities can adopt, it does not feature any of the multitude of great examples of practical actions being delivered by London and other cities to implement circular economy principles. Further information on some of the action being carried out in London can be found on the ReLondon website.⁶

There are numerous frameworks which describe how national and local governments can support development of a circular economy. An analysis of several frameworks^{7 8 9 10} identified the Ellen MacArthur Foundation ten policy levers as the most comprehensive in relation to mapping city level circular economy policy, see Figure I.

The levers were developed by Ellen MacArthur Foundation to support policy makers in understanding the different ways that government at all levels can support a transition to a more circular economy through policy development.

Figure 1: Urban Policy Levers Framework, Ellen MacArthur Foundation 2019.



The policies presented in this report were identified through desk-based research, interviews, workshops and input from an advisory group of experts.¹¹ It should be noted this research was conducted in the English language so there may be other examples of city circular economy policy in other languages which have not been captured within this report. A mid-point review of the research with the advisory group was undertaken to identify which of the ten policy levers from the Ellen MacArthur Foundation framework were of most relevance to London with regards to existing policy and the potential for future policy development.

The five cross cutting policy levers identified as the most relevant by the advisory group are presented in the first set of tables. These are: roadmaps and strategies parts A and B; convening and partnering; capacity building; urban planning and financial support.

The report then provides a review of circular economy policies using the urban policy levers framework in relation to five focus sectors identified within London’s circular economy route map: built environment; food; textiles; electrical and electronic equipment and plastics. These five sectors are chosen for their social, economic and environmental importance to London, and the potential opportunities circular economy offers to these sectors¹².

Although the report aims to provide examples for all ten policy levers across all five focus sectors, this has not been possible in all cases. Some types of policy such as legislative

and regulatory instruments and fiscal instruments are very dependent upon national and regional governments, and therefore it may be difficult to adapt or develop new policies at a city level.

Finally, the report provides examples of how London boroughs are embedding circular economy principles within local policies using the urban policy levers framework, illustrating the importance of sub-city policies in influencing circular economy and contributing to city level progress. This includes areas such as local development plans, asset management and procurement.

The report has been written to allow each section to stand alone, allowing readers to select the sections which are most relevant to their areas of interest. This means some details are repeated in more than one section where appropriate.

2. London policy analysis - cross cutting policy levers

2.1. Road maps and strategies - Part A

Context

In the UK, cities including London¹³, Glasgow¹⁴, Peterborough¹⁵ and Brighton and Hove¹⁶ have specific circular economy documents that aim to push forward the transition to a circular economy. At a regional level, the York and North Yorkshire Local Enterprise Partnership¹⁷ and the West Midlands Combined Authority¹⁸ are working to integrate circularity into their regional activity, the latter as part of the region's COVID-19 response. Having a circular economy route map can raise awareness and increase understanding of the approach, signalling strong ambition to other cities, funders, investors, and stakeholders.¹⁹

Circular economy road maps are shaped by the prime drivers for a city's circular economy journey, whether that be competitive advantage, a higher employment rate, sustainable use of natural resources, a decrease in pollution or a better quality of life.²⁰ Reducing carbon emissions is also a key motivator for circular economy action.

A global survey of 44 cities and 2 regions conducted by the OECD in 2020 found that: 'most of the responding cities and regions perceive themselves as at the initial phase of the [circular economy] transition'. Only 10% of surveyed cities and regions defined themselves as 'advanced', while 39% as 'in progress', 57% as 'newcomers' and 4% of surveyed cities and regions described the transition towards the circular economy as 'not in place'.²¹ An advanced city in the survey is defined as those cities and regions that have developed strategies or roadmaps and engaged with a variety of stakeholders. The cities defining themselves as advanced in the survey were Amsterdam (Netherlands), Kitakyushu (Japan), London (UK), Paris (France) and Flanders (Belgium).

Research by the Ellen MacArthur Foundation identified that mainstreaming circular economy principles into specific policy levers is one way in which cities have incorporated circular economy at the city government level.²² The Foundation also found many first attempts at incorporating circular economy into city strategies focused on waste and resource management plans.²³ However, as presented here, some cities are moving beyond this narrow view of circular economy, and are producing ambitious new policies to support the circular economy transition.

Current London-wide policy

The Mayor of London has recognised the importance of circular economy for the future of the city, both in policy and action over the last five years, by incorporating circular economy principles into key London strategies. In 2018 the London Environment Strategy (LES) was published by the Mayor. This document sets out policies and proposals in seven environmental topic areas, including a chapter on 'waste' and on 'the transition to a low carbon circular

economy'.²⁴ The LES features strategic aims to 'make London a zero waste city' and 'for London to transition to a low carbon circular economy', with targets to ensure that there is zero biodegradable or recyclable waste to landfill by 2026 and to meet or exceed the municipal waste recycling target of 65% by 2030. The LES describes circular economy principles, opportunities and policies particularly in the areas of food waste and single use plastics.

ReLondon, together with the Greater London Authority (GLA), published London's circular economy route map in June 2017.²⁵ It was amongst the first city route maps to be published.²⁶ The route map sets out for the first time the opportunity that a circular economy could bring to London together with some initial actions for the capital's stakeholders.

The route map identifies a potential net benefit of at least £7bn to the capital every year by 2036 from the sectors of built environment, food, textiles, electricals, and plastics. Circular economy is recognised in the LES as a way in which waste can be reduced and states that the 'the Mayor is working with LWARB [now ReLondon] and other partners to implement the actions set out in the Route Map'.

In 2021 the new London Plan was formally adopted.²⁷ The London Plan sets out a framework for how London will develop over the next 20-25 years and the Mayor's vision for Good Growth. The Plan is part of the statutory development plan for London, meaning that the policies in the Plan should inform decisions on planning applications across the capital. London boroughs' Local Plans must be in 'general conformity' with the London Plan. Policy S17 of the London Plan is entitled 'Reducing waste and supporting the circular economy'. The policy focuses on 'resource conservation, waste reduction, increases in material reuse and recycling, and reductions in waste going for disposal' through the promotion of a circular economy. The policy considers the relevant targets on reducing waste to landfill and increased recycling from the LES and considers how the London Plan can support them. Policy D3 'Optimising site capacity through the design-led approach' includes circular economy building design principles which reference material selection. The London Plan also includes a policy on improving the energy efficiency of major developments across the capital.

A world leading policy introduced in the London Plan requires that a circular economy statement is produced for planning applications referable to the Mayor. An application is referable to the Mayor given certain criteria including development of 150 residential units or more, development over 30 metres in height (outside the City of London) and development on Green Belt or Metropolitan Open Land.²⁸

The London Plan states that a circular economy statement should be submitted to demonstrate:

- how all materials arising from demolition and remediation works will be reused and/or recycled;
- how the proposal's design and construction will reduce material demands and enable building materials, components and products to be disassembled and reused at the end of their useful life;
- opportunities for managing as much waste as possible on site;
- adequate and easily accessible storage space and collection systems to support recycling and reuse;

- how much waste the proposal is expected to generate, and how and where the waste will be managed in accordance with the waste hierarchy; and
- how performance will be monitored and reported.

Guidance on how to prepare a circular economy statement has been prepared and a public consultation undertaken, with final guidance likely to be published by the end of 2021.²⁹

Other good practice identified

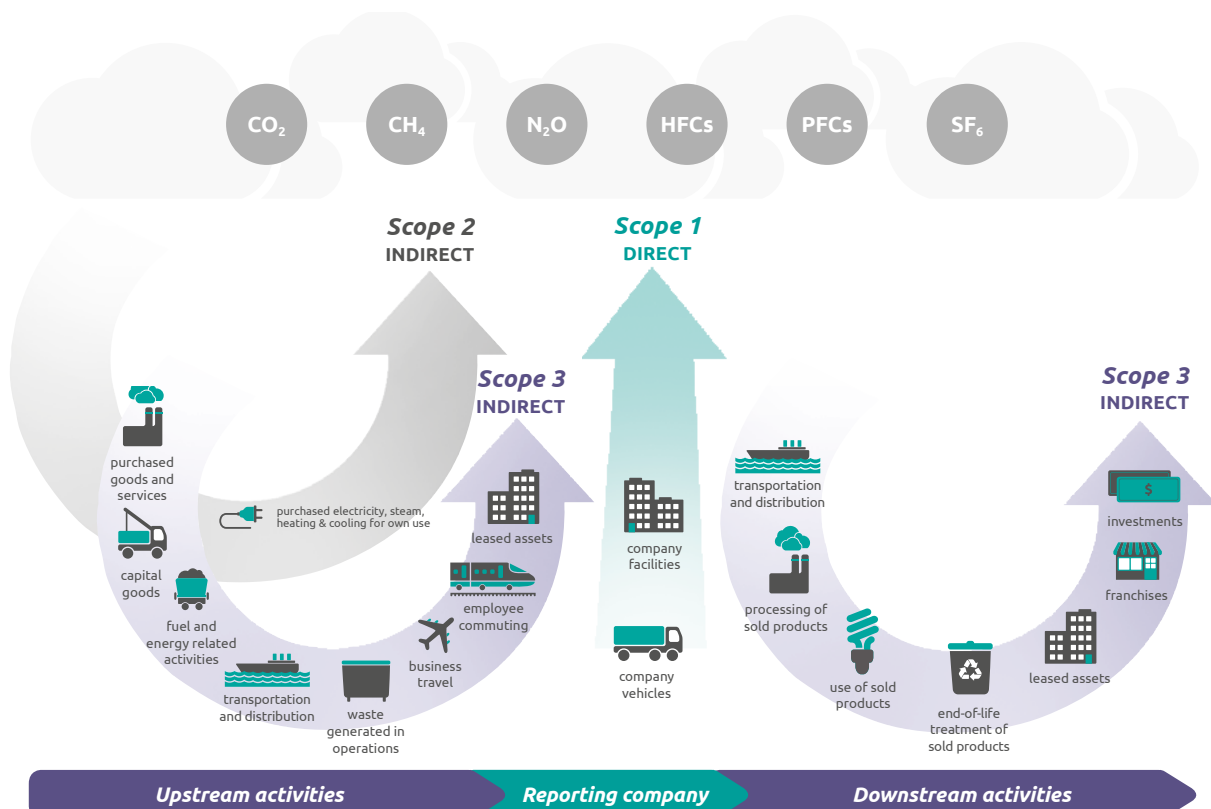
City	Policy	Notes	Reference
Amsterdam	The Amsterdam Circular Economy Strategy states that 'The City of Amsterdam is setting the course towards becoming a circular city by 2050.'	The City of Amsterdam has published a suite of documents in support of its circular economy strategy including a city portrait (building in Doughnut Economics principles), monitoring framework and action plans. The Strategy has three focus areas; food and organic waste streams, consumer goods and the built environment.	Amsterdam Circular economy 2020 – 2025 Strategy, City of Amsterdam, 2020
Glasgow	Glasgow's circular economy route map states that 'Glasgow now declares that it is committed to being a circular city by 2045.'	The Glasgow Route map aims to establish and mainstream the guiding principles of circularity whilst ensuring the model is based upon collaboration, education, and co-operation to address social inequalities. The route map has sections on policy, planning, production, people, private and public sectors, and an action plan setting out activities from 2020 to 2030.	Circular economy route map for Glasgow 2020, Glasgow City Council, 2020
Paris	The Paris Circular Economy Plan 2017-2020 states that 'The task of steering the circular economy strategy has been assigned to the Deputy Mayor of Paris, who is also responsible for issues related to the social and solidarity economy and social innovation'.	The Paris Circular Economy Plan 2017 – 2020 sets out enabling actions towards a more circular Paris alongside early action from the municipality. Two further road map documents set out 15 actions each that Paris are pursuing. Example actions are focussed on construction, repair and reuse, remanufacture and responsible consumption.	Paris Circular Economy Plan 2017-2020, City of Paris, 2017 Paris Circular Economy Plan, 1st roadmap, City of Paris, 2017 Paris Circular Economy Plan, 2e feuille de route, City of Paris, 2017
Helsinki	The Helsinki City Plan 2017-2021 states that 'Emission reductions and circular economy projects will be carried out in Helsinki in tandem with the business community and residents. Helsinki wants to increasingly actively serve as a platform for interesting and successful innovations that generate new potential exports'.	The City of Helsinki's roadmap for a circular and sharing economy was published in 2020. The roadmap focuses on construction, procurement, green waste and sharing economy.	Helsinki City Plan 2017-2021, City of Helsinki, 2017 City of Helsinki's roadmap for circular and sharing economy, City of Helsinki, 2020

2.2. Road maps and strategies – Part B climate strategies and consumption-based emissions

Context

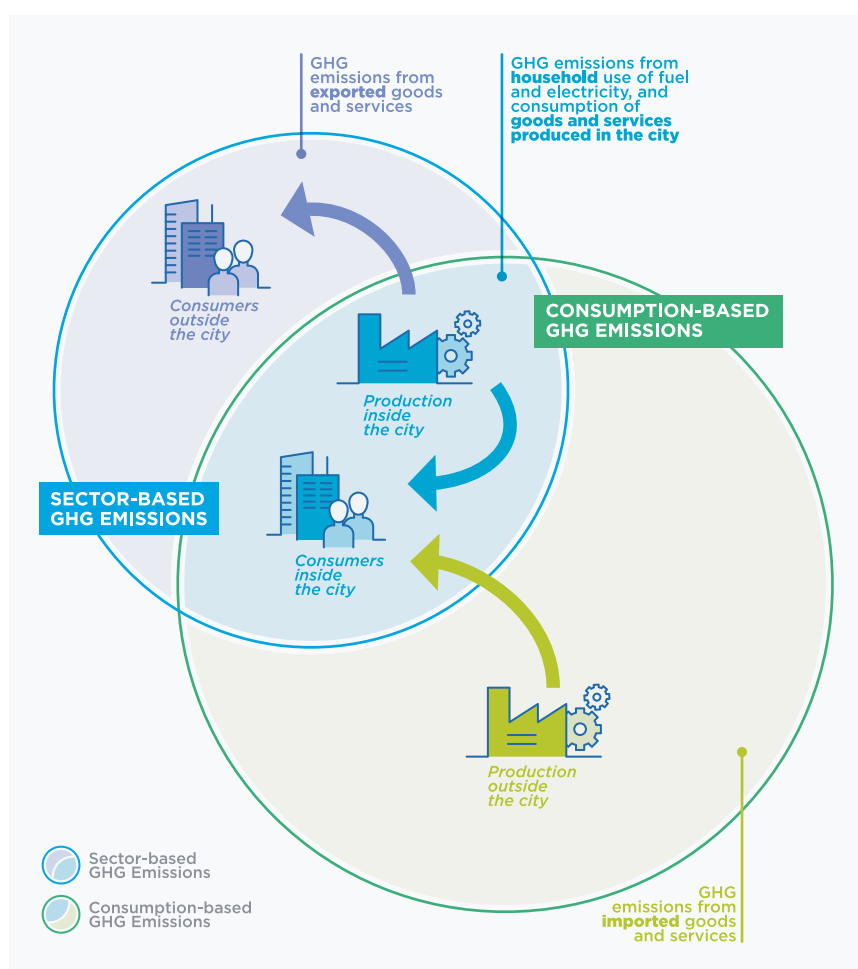
Cities play a critical role in supporting the world to reach the climate targets set out in Paris Agreement to keep global warming under 1.5°C. With a predicted 7 out of 10 people in the world living in cities by 2050³⁰ this role will continue to grow. Many cities have set net zero carbon targets and developed strategies to address climate impact using the Greenhouse Gas Protocol (GHGP)³¹, which is recognised by the UK government and globally as an independent standard for reporting greenhouse gases. The GHGP sectoral approach divides emissions up into scopes 1, 2 and 3 as described in Figure 2 below. As the ‘indirect’ scope 3 emissions are more difficult to measure and manage, the focus of city climate action strategies tends to be on scope 1 and 2 emissions, namely transport, energy and waste. The GHGP sectoral methodology captures all local emissions within a city, both production and consumption. It does not measure the emissions of products made elsewhere and consumed in a city.

Figure 2: Overview of GHG Protocol scopes and emissions across the value chain. WRI, 2011.³²



To obtain a more complete picture of a city's carbon emissions (which includes the emissions from the goods and services that are imported into a city), a consumption-based emissions approach can be taken. The emissions of these imported goods are considerable. Research by C40 estimates that they are approximately 60% higher than those calculated through the GHGP sectoral approach, as illustrated in Figure 3. Without any action, these consumption-based emissions will nearly double by 2050.³³ C40 also reports that 'to avoid climate breakdown, global urban consumption must halve by 2030. For this to be achieved, emissions from consumption in high-income cities must decrease by two thirds within the next decade'. This consumption-based emissions approach can work alongside the sectoral GHGP methodology and does not replace it.

Figure 3: Diagram of the overlap between consumption-based GHG inventories and sector-based GHG inventories. C40, 2018.³⁴



The City of Minnesota offers an example of where the results of the GHGP methodology have been compared with the consumption-based emissions methodology.³⁵ The researchers from the Minnesota Pollution Control Agency suggest that the consumption-based emission data could be used to shape climate policy to identify how levels of reuse could influence carbon emissions and at which life cycle stage to intervene - production, use or end of life. An additional benefit identified was that the consumption-based emissions categories (food, buildings and infrastructure, clothing and textiles, and electronics and electricals for example) are more relatable to city residents. This helps when developing and monitoring behavioural change programmes.

A circular economy approach can support emissions reductions in both the GHGP sectoral and the consumption-based emissions methodologies. This happens as more circular economy business models (e.g. design for longevity, remanufacture, product as service) are employed and products and materials are kept in use for longer and then finally effectively recycled, reducing the amount of virgin materials used. The Circularity Gap Report 2021³⁶ states that ‘the circular economy ensures that with less material input and fewer emissions, we can still deliver the same, or better, output. Through smart strategies and reduced material consumption, we find that the circular economy has the power to shrink global GHG emissions by 39% and cut virgin resource use by 28%’.

Cities are beginning to consider and illustrate how circular economy can help tackle consumption-based emissions and are also considering how to measure progress, examples are included in the good practice section below.

Current London-wide policy

The Mayor of London declared a climate emergency in 2018.³⁷ In his 2021 manifesto, the Mayor of London set an aim for the capital to be zero-carbon by 2030,³⁸ bringing the target forward from the previous 2050 deadline. ‘Zero carbon London: A 1.5°C compatible plan’, published in December 2018, sets out steps to achieve the original 2050 target, focusing on transport, energy, and the operation of buildings.³⁹ The landfill reduction and recycling targets and policies in the London Environment Strategy (LES)⁴⁰ also work towards this zero-carbon aim. The LES also commits to the continued measurement of scope 3 carbon emissions and acknowledges that scope 3 emissions are estimated to account for as much as three times the amount of direct emissions.⁴¹

By April 2021, 28 London boroughs had declared a climate emergency.⁴² Working together through London Councils, boroughs agreed a Joint Statement on Climate Change in December 2019, including a commitment to reduce consumption emissions by two thirds by 2030.⁴³ As of April 2021, 24 boroughs have published their own Climate Action Plans, many of which consider how circular economy related actions can help tackle the climate emergency.⁴⁴ London boroughs are also working together to create a common policy position on accounting for scope 1,2 and 3 emissions. London Councils have also published the first annual report on borough-level consumption emission profiles.⁴⁵ More information and examples of how this is being actioned can be found in the London boroughs section of this report on page 50.

Procurement policy will be looked at in more detail on page 23 of this report but a relevant note here is that in the 2019/2020 London Responsible Procurement Implementation Plan the GLA committed to develop an understanding of scope 3 carbon emissions within the GLA Group.⁴⁶ This action was completed by March 2021. The GLA Group includes Transport for London, Mayor’s Office for Policing and Crime, London Fire Commissioner, London Legacy Development Corporation and Old Oak Park Royal Development Corporation. An updated version of the Implementation Plan is expected to be published in autumn 2021.

Other good practice identified

City	Policy	Notes	Reference
Paris	The City's objective is to reduce Paris' greenhouse gas emissions from food by 40% by 2030, so that Paris can serve as a model of responsible food consumption.	Paris is linking consumption to climate change through this policy and have begun with a focus on food.	Paris Climate Action Plan, City of Paris, 2018
Amsterdam	The Amsterdam Circular Economy Strategy states that 'The City of Amsterdam is setting the course towards a circular city by 2050. We aim to halve the use of new raw materials by 2030.'	The Amsterdam Strategy states 'through smarter production and consumption, we can conserve the raw materials we so badly need for our prosperity and the energy transition to which we are also strongly committed'. The focus is on food and organic waste streams, consumer goods and built environment.	Amsterdam Circular economy 2020 - 2025 Strategy, City of Amsterdam, 2022
Vancouver	The City of Vancouver's Zero Waste 2040 primary objective is to eliminate the disposal of solid waste to landfill and incinerator by 2040.	The plan has complementary objectives including 'to grow Vancouver's circular economy, to reduce Vancouver's greenhouse gas emissions and reduce Vancouver's ecological footprint.'	Zero Waste 2040, City of Vancouver, 2018
Eugene	The city has set out actions to reduce consumption-based emissions as set out in its Climate Action Plan.	Section 6 of the Plan focuses on CBE alongside the GHGP approach. Actions on repair, reducing food waste and the use of secondary materials in construction are included.	Eugene's community Climate Action Plan 2.0, City of Eugene, 2020

2.3. Convening and partnering

Context

Local governments can convene, facilitate, and spur collaboration between public, private, and civic leaders.⁴⁷ The convening power of local government can be used to bring organisations together to drive circular economy transition. For example, the Government of Flanders has set the circular economy as one of the seven transition priorities in its policy paper, “Vision 2050, a long-term strategy for Flanders” and appointed Circular Flanders to continue the circular economy as a transition priority.⁴⁸ Circular Flanders is an example of a partnership between public authorities, businesses, civil society, and the knowledge community that undertake collective action and set up circular economy-related initiatives. The Circular Flanders partnership is supported by a multidisciplinary team from OVAM, the Flemish public waste agency. They have convened ‘green deal’ initiatives on procurement and construction that help supply chains to collaborate to achieve circular objectives.⁴⁹

Cities can also bring partners together to promote city interests to national government, in this case for policies and regulation that support circular economy transition.

Current London-wide policy

The Mayor of London states in the London Environment Strategy (LES), that to transition to a circular economy ‘Everyone must play their part, from government, the boroughs, the waste industry and other partners, to Londoners themselves’. The LES goes on to say that ‘The Mayor is working with LWARB [ReLondon] and other partners to implement the actions set out in the [circular economy] Route Map. This includes supporting entrepreneurs, businesses and social enterprises to cut waste, increase reuse and recycling, helping create the right conditions to accelerate London’s transition to the circular economy’.⁵⁰

The Mayor has committed to several demonstration projects in the capital, carried out in partnership with stakeholders, in the LES most notably on reducing the use of single use plastics. The LES states that:

‘the Mayor will also take the following actions to reduce the number of plastic bottles and single use cups:

- pilot water refill schemes in different areas of London to test their effectiveness for improving access to tap water. The Mayor will work with City to Sea, the Zoological Society of London (ZSL), and other partners to use the insights from the pilots to inform the roll out of a London-wide water refill scheme;
- work with ZSL’s One less campaign to install 20 drinking water fountains as an initial pilot;
- provide funding over three years to fund the installation of more drinking water fountains and behaviour change campaigns to drive a water refill culture; and
- work with the supply chain, from manufacturers to retailers, and large employers to waste authorities, to roll out measures to cut the impact of single-use coffee cups, such as increasing recycling facilities, or supporting initiatives to increase use of reusable cups’.

The Mayor also uses his voice to lobby for change that he believes needs to happen in London that requires legislative change at a national level. For example, the LES states ‘The Mayor is calling for action to ‘introduce tax relief, such as variable rates of VAT, on materials innovation that reduces waste and reliance on virgin materials, and increases materials reuse, repair and remanufacture. This should include tax relief on materials with recycled content in them and on repair services (for example, on bicycle and appliance repair services).’

London Councils convenes the 32 London boroughs and the City of London around a wide range of topics, including a number relevant to this report, namely reducing consumption-based emissions (detailed in the Roadmaps and strategies part B on page 13) and the Green New Deal.⁵¹

Other good practice identified

City	Policy	Notes	Reference
Toronto	As part of the Long-Term Waste Management Strategy, the City of Toronto is working towards an aspirational goal of zero waste and a circular economy. ⁵² The strategy states: ‘Made up of representatives from local businesses and community groups from various sectors across Toronto, the Circular Economy Working Group will support the City in its journey towards becoming the first circular city in Ontario.’	Working group members have the opportunity to represent their sector or organisation’s perspective at key stages throughout the City’s circular economy journey, provide input into the development of circular economy programmes and initiatives and adoption of circular practices, promote and share information on relevant solid waste management services programmes and issues and provide insight and share feedback on circular economies.	Toronto Circular Economy Working Group Toronto Circular Economy Working Group Meeting 7 Dec 2020
Glasgow	The Glasgow Circular Economy Route Map sets out details to ‘Create a City Sustainability/ Circular Charter for Glasgow to enable organisations to demonstrate commitment to circularity and support a sustainable recovery.’	Further detail within the Glasgow route map states ‘All businesses who sign up will be promoted as proactive business across the City and urged to display the charter logo’	Circular Economy Route map for Glasgow 2020 - 2030 , Glasgow City Council, 2020
Amsterdam	The Amsterdam Circular Strategy states ‘We are preparing a lobbying agenda in which we discuss a number of topics that are important for the circular economy.’	Further detail within the Amsterdam strategy states, ‘Topics in the lobbying agenda include a shift from taxation on labour to taxation on raw materials and energy, regularly tightened legislation and objectives in the field of reuse, construction and area development, extended producer responsibility for an increasing number of product groups and/ or life stages and room for municipalities to experiment in deviating from (obstructive) national legislation.’	Amsterdam Circular 2020-2025 Strategy , City of Amsterdam, 2020

2.4. Capacity building – jobs and skills

Context

Capacity building refers to the training and advisory support city governments can provide to individuals, companies, and organisations.⁵³ One key part of capacity building is to understand and work in partnership with other local stakeholders to recognise what circular economy jobs and skills are required to create social and economic value for a city. This is particularly important as part of London’s recovery from the COVID-19 pandemic with employment levels having dropped 5% from January 2020 to January 2021, double the rate of decline recorded nationally.⁵⁴

In 2015, research carried out by WRAP into the potential for circular economy jobs in London was carried out. In the most ambitious, ‘transformative’ scenario modelled, a more extensive expansion of the circular economy could offer more than 40,000 new circular economy jobs (gross), reducing net unemployment in London by around 12,000 jobs (or 0.26 percentage points), by 2030.⁵⁵ This is likely to be a conservative estimate of circular economy jobs as the research only considers core or more traditional circular economy jobs such as those in reuse, remanufacturing, hire and lease businesses and the recycling sector.

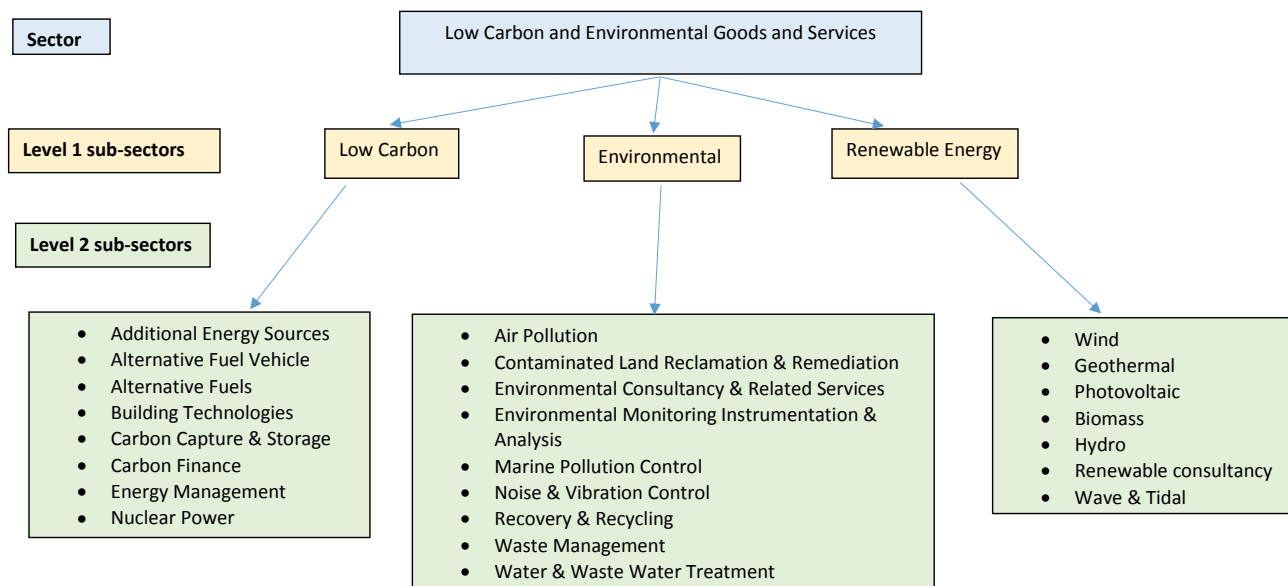
A broader definition of circular economy jobs is captured in ‘The Future of Work: Baseline Employment Analysis and Skills Pathways for the Circular Economy in Scotland’, a study by Zero Waste Scotland and Circle Economy.⁵⁶ A summary table can be seen in Figure 4. As well as the core, more traditional circular economy jobs, there is a raft of jobs that enable the circular economy through design and technology, as well as indirect sectors that perform an awareness raising and supportive role.

Figure 4: The Future of Work: Baseline Employment Analysis and Skills Pathways for the Circular Economy in Scotland. Zero Waste Scotland and Circle Economy, 2020.⁵⁷

CIRCULAR JOB	ECONOMIC SECTOR	CIRCULAR ECONOMY ELEMENT	EXAMPLE SECTORS AND ACTIVITIES
DIRECT CIRCULAR JOBS	CORE SECTORS	Sustain and Preserve What’s Already There Use Waste as a Resource Prioritise Regenerative Resources	Repair Services Recycling Renewable Energy
	ENABLING SECTOR	Design for the Future Incorporate Digital Technology Rethink the Business Model Team up to Create Joint Value	Industrial Design and Architecture Digital Technology Renting or Leasing Activities Professional and Networking Associations
INDIRECTLY CIRCULAR JOBS	INDIRECTLY CIRCULAR SECTORS		Education Government Services Professional Services

Several cities in the UK including London⁵⁸ and Manchester⁵⁹ use a specific definition for 'green' sector jobs and the value they bring to their respective cities - the low carbon and environmental goods and services sector (LCEGS). Whilst circular economy can be considered part of LCEGS, this classification does not recognise the potential breadth of circular economy. See breakdown of LCEGS sectors in Figure 4 below. For example, an architect designing buildings for disassembly would be considered a circular economy job reflecting on Figure 4 but would not be captured by the LCEGS taxonomy.

Figure 5: Breakdown of LCEGS sector in London. GLA and kMatrix, 2019.⁶⁰



Current London-wide policy

The London Recovery Programme was published by the Mayor of London and London Councils in 2020. It outlines London's approach to supporting the capital following the COVID-19 pandemic. One of nine missions within the document is 'A Green New Deal' to 'tackle the climate and ecological emergencies and improve air quality by doubling the size of London's green economy by 2030 to accelerate job creation for all'.⁶¹

The Green New Deal web page⁶² states that: '[London's] growing 'low carbon and environmental goods and services' (LCEGS) sector is worth £40bn in sales and employs nearly 250,000 people. Examples include renewable energy projects like wind and solar and other green technology and materials to make low carbon buildings and transport. London's green economy is worth more to the city than the construction and manufacturing sectors combined. Putting the environment at the centre of our recovery is a chance to reverse the looming economic downturn. It will bring new investment to London, help businesses to see long-term growth, and provide decent, skilled, local jobs.'

A further mission relevant here is 'Helping Londoners into good work'. The London Recovery Programme states that this mission will 'support Londoners into good jobs with a focus on sectors key to London's recovery'. It goes on to identify examples of projects that might deliver this mission including 'By establishing sector specific London 'Academies' to support Londoners to gain relevant skills and move into good work in (not exhaustive) digital; health; social care; green economy, and creative and cultural industries'.⁶³

The 2018 London Economic Development Plan (LEDP) states that: ‘While it is important that all businesses are able to innovate and grow in London, the Mayor has identified a number of sectors that have an especially important role to play in helping to deliver his vision for the economy. These are sectors that bring wider benefits to London’s economy and Londoners. They include the low carbon and environmental goods and services sector, where London’s CleanTech businesses are leading the way, driving the transition to a low carbon circular economy’⁶⁴. Similar wording also appears in Skills for Londoners Strategy.⁶⁵

The LEDP also states: ‘The Mayor wants to see London’s waste sites optimised to support circular economy activities like reuse and repair in the process creating new jobs and apprenticeships. This will be supported by the London Waste and Recycling Board’s Advance London work programme (now renamed ReLondon Business Transformation programme), which provides support and funding to businesses that use circular economy business models. The integration of a more circular approach into business models across all sectors offers London’s businesses an opportunity to become more resource efficient and profitable. Adopting a more circular approach will help businesses to become more resilient to price fluctuations in commodities and future resource scarcity and stimulating innovation and the adoption of new business models will help to ensure London’s economy remains globally competitive.’⁶⁶

Other good practice identified

City	Policy	Notes	Reference
Amsterdam	The City of Amsterdam Circular Economy Strategy states that 'The application of circular principles and criteria encourages new business activities. This in turn creates a demand for new jobs and skills in the circular economy. By setting a clear course, the City gives market parties time to adapt and develop new curricula or programmes for retraining or lifelong learning.'	City of Amsterdam and the Metropolitan region are working with Circle Economy to monitor circular economy jobs on an annual basis. The latest document estimates that 11% of jobs in the Metropolitan region of Amsterdam are circular.	Amsterdam Circular economy 2020 – 2025 Strategy, City of Amsterdam, 2020 Circular jobs and skills in the Amsterdam Metropolitan Area, Circle Economy, 2018
Glasgow	The Glasgow route map states 'A local production economy could provide fair paid meaningful jobs while building resilience into the city framework which is outlined in both the city's climate change adaptation and resilience commitments.'	The 'Future of work' report by Zero Waste Scotland and Circle Economy estimates that 10% of jobs in Scotland are currently circular. The report states 'South Western Scotland has more core circular jobs than any other region in Scotland (15,464 or 18.8% of all circular jobs in the region). The majority of these are in Glasgow City, which may be because many companies are headquartered in the city and register their data there, although operational activities may take place elsewhere.'	Circular Economy Route map for Glasgow 2020 -2030, Glasgow City Council, 2020 The Future of Work: Baseline Analysis and Skills Pathways for the Circular Economy in Scotland, Zero Waste Scotland and Circle Economy, 2020
Flanders region	The Flanders region 'Implementation plan for household waste and comparable industrial waste – summary' includes a target to reuse 7kg of electrical waste per person in the Flanders region by 2022.	Reuse in the Flanders region is carried out by accredited reuse centres under the De Kringwinkel brand and other social enterprises. The RREUSE organisation states that: 'As a result, the social enterprise reuse sector in Flanders now supports over 5,000 jobs, with the majority of those being for persons distanced from the labour market.'	Implementation plan for household waste and comparable industrial waste – summary, OVAM, 2017 Re-use targets RREUSE (online article)

2.5. Public procurement

Context

Public procurement is one of the most direct ways in which public authorities can support a developing circular economy by purchasing circular goods and services and supporting the market, providing a direct opportunity to invest in the circular economy. The Ellen MacArthur Foundation overview of urban policy levers for circular economy states that ‘integration into public procurement frameworks has been a key early focus area for cities’.⁶⁷

In the UK, the Government Public Services Social Value Act came into force in 2013. This requires people who commission public services to consider how they can also secure wider social, economic, and environmental benefits.⁶⁸ In June 2021 two new Procurement Policy Notes (PPNs) were published. The first sets out how to take account of suppliers’ net zero carbon reduction plans in the procurement of major Government contracts⁶⁹. The second PPN states that “All contracting authorities should consider the following national priority outcomes alongside any additional local priorities in their procurement activities: tackling climate change and reducing waste”.⁷⁰

The Dutch Government has trialed circular procurement that looks beyond the traditional procurement process for over ten years and captured their learning in their ‘Circular Procurement in 8 steps’ document.⁷¹ The document uses a definition of procurement that ‘starts when you initially formulate your needs and ends when the product in question is reused as a product or when its components or materials are given a new application’. For circular procurement to be effective it must consider not only the circular production of the product but its use, maintenance, and reuse, taking the whole supply chain into consideration. The Dutch guide focuses on the importance of supply chain collaboration. It suggests open discussions with suppliers by organising market consultations and cultivating a collaborative environment by bringing value chain partners together. Also key is the approach to selection of suppliers, the inclusion of relevant and proportionate requirements in the specification, the evaluation of relevant and proportionate award criteria, and an effective contract management process.

Current London-wide policy

The London Environment Strategy (LES), 2018, outlines three elements that illustrate the Mayor’s role in creating, enabling and benefitting from the transition to a low carbon circular economy, one of which is creating market demand.⁷² The LES states ‘the Mayor will show leadership and ensure that London is illustrating, through its strong policy framework, how cities can create demand for low carbon and environmental goods and services that directly address the environmental challenges that they face and drive resource efficiency and a reduction in consumption. The GLA group, and the public sector more generally, can create demand for low carbon resource efficient goods and services directly through procurement.’

Alongside other relevant procurement regulation, the GLA Group (Transport for London, Mayor’s Office for Policing and Crime, London Fire Commissioner, London Legacy Development Corporation and Old Oak Park Royal Development Corporation) use the London Responsible Procurement Policy (RPP) to guide their spend which is approximately

£9.5 billion a year.⁷³ The 2017 RPP includes an 'Improving environmental sustainability' theme with reference to circular economy procurement for the first time.⁷⁴ In March 2021 the RPP was again updated, and retains commitment to the circular economy⁷⁵.

The GLA Group Responsible Procurement Implementation Plan (RPIP) establishes programmes and targets for each GLA Group organisation ('Functional Body') to deliver on the RPP. The RPIP is agreed jointly by the Functional Bodies and the GLA, ensuring alignment with Mayoral policy and setting challenging but practicable actions. It includes action owners, targets, timescales, metrics, and expected outputs and outcomes.

The first RPIP was published in March 2019⁷⁶ including two actions on circular economy:

1. Identify and establish three circular economy pilots across the GLA Group, in partnership with the GLA Environment Team; and
2. Develop an understanding of scope 3 carbon emissions within the GLA Group.

The second point was completed in March 2021, using the GHG Protocol methodology to identify carbon hotspots, broken down by spend category for each Functional Body. It also included stakeholder feedback on greatest opportunity areas. This provided the evidence base to plan circular economy and carbon reduction activities in the next iteration of the RPIP. A revised version of the RPIP is due to be published in 2021, covering the 2021-24 Mayoral term.

A report updating on the progress of the two actions mentioned above was published in 2021. It includes a case study on how the Metropolitan Police Service are adopting circular economy approaches in the National Uniforms Managed Service contract.⁷⁷ Through this supply chain initiative, since 2019:

- All end-of-life uniforms have been diverted from landfill and are sent to an energy-from-waste plant, with suitable items sent for recycling;
- 3 tonnes of boots and legacy stock have been donated to charity; and
- In excess of 22 tonnes of Kevlar from protective vests have been recycled and used in the automotive industry.

The same update report also details the contract between the London Fire Brigade (LFB) and its supplier, Bristol Uniforms. The service arrangement means all personal protective equipment remains the property of Bristol Uniforms, instead of being purchased by the LFB. The report states that the arrangement 'encourages repair and reuse as part of a circular economy approach, and helps to extend the garments' lifespan, while still complying with stringent product standards. There are also stipulations around the laundry process, care and maintenance, kit repair history and the management of legacy stock to reduce environmental impacts. A previous two-year contract extension with the same suppliers resulted in a saving of at least £700,000 for the LFB. This was made possible not just by increasing the life of the kit, but by revisiting requirements based on updated firefighter numbers, ultimately reducing resource use and waste.

Other good practice identified

City	Policy	Notes	Reference
Toronto	The Circular Economy Procurement Implementation Plan and Framework (an evidence-based and measurable circular procurement policy) was published by Toronto in 2018.	<p>The city aims to pilot procurements and pilot metrics to report and make recommendations in 2022.</p> <p>A 2019 update report states ‘Staff from the Solid Waste Management Services and Purchasing and Materials Management Divisions, in collaboration with staff from other divisions, are undertaking work to identify and action up to ten divisional and corporate CE Pilots. Based on the opportunities identified within divisional procurement plans and individual procurements, staff will establish circular criteria, requirements, and contract management tools for CE Pilots on a case-by-case basis.’</p>	Circular Economy Procurement Implementation Plan and Framework (CE Framework), City of Toronto, 2018 Update on the Circular Procurement Implementation Plan and Framework, City of Toronto, 2019
Berlin	<p>In 2010 the Berlin House of Representatives passed the Berlin Public Procurement Act. This obliged all public purchasing offices to apply ecological criteria for their procurement, including the life cycle costs.</p>	<p>The Act has produced cost savings of around €38 million per year. The annual greenhouse gas emissions of the product groups and services examined decreased an estimated 47%, or 355,000 tonnes CO2e, compared to the former conventional procurement.</p>	Municipality led city circular economy case studies, C40, 2018
Flanders region	<p>The government of the Flanders region published its Vision 2050 document in 2016, with circular economy being one of seven transition priorities. A ‘green deal circular procurement’ is identified in Vision 2050 as a supply driven approach the region will take.</p>	<p>The GDPC was set up in 2017 by Circular Flanders, in collaboration with The Shift, VVSG (the Flemish Association of Cities and Municipalities) and Bond Better Leefmilieu. As part of the Green Deal on Circular Procurement (GDPC), over 150 participating organisations have committed to collectively applying or facilitating the procurement methods outlined as part of the Green Deal. A write up of the process can be found in the Circular Flanders Retrospective Report.</p>	Vision 2050 – a long term strategy for Flanders, Flanders State of the Art, 2016 Circular Flanders Retrospective Report 2017 – 2019, Circular Flanders, 2019

2.6. Financial support

Context

The transition to a circular economy requires investment in businesses at all stages from start up to venture capital and direct funding of innovative pilot projects. This is to help overcome issues such as producers and users of non-circular products not paying the full price for the costs they incur, the risk of innovation and the need for change across the entire supply chain.⁷⁸

In recent years there has been increasing interest from the finance sector as the impact of climate change and the increasing role of ESG (Environment Social and Governance) becomes apparent. Research by the Ellen MacArthur Foundation, *Financing the Circular Economy*, discovered that in 2017 there were no public equity funds focusing partially or entirely on the circular economy but by mid-2020, ten had been launched by leading providers including BlackRock, Credit Suisse, and Goldman Sachs. Commercial banks such as ABN Amro, ING and Lloyds Bank are all actively seeking to finance circular projects and companies.⁷⁹ There are also a number of investment companies such as Circularity Capital⁸⁰ and Closed Loop⁸¹ that only fund circular businesses.

The UK government's first Green Finance Strategy⁸² was published in 2019 with a key trend identified as using public money to leverage private capital effectively. This is an area that is identified in the Ellen MacArthur Foundation report, which states that there is a clear role for government to set direction and provide economic incentives, invest in circular activities and innovation, improve transparency, and integrate circularity into financial regulation, risk assessments and modelling.⁸³ This drives the circular economy agenda, shows leadership, and has the potential to create local jobs and more local circular suppliers.

Direct funding of innovative circular economy approaches has been used in many cities to test what works and what does not, for example in Paris⁸⁴, Amsterdam⁸⁵ and Flanders region⁸⁶.

Innovative funding mechanisms can be used to finance circular economy activity including bonds, community share offers and crowd funding. Creating investment portfolios of opportunities within a city is another option. Bristol City Council and Bristol Energy - the city's energy company are using this approach. The City Leap (an energy investment programme created by the city) created a public portfolio document⁸⁷ which issued a call out to organisations, investors and innovators that have the vision to join the council in establishing a joint venture with another organisation or group of organisations to support the delivery of their carbon neutral 2030 target.

Current London-wide policy

The London Recovery Programme was published by the Mayor of London and London Councils in 2020. It outlines London's approach to supporting the capital following the COVID-19 pandemic.⁸⁸ A 'Green New Deal' is one of nine missions within the document. The Mayor has allocated a budget of £54.4m to support the Green New Deal mission, including a £10 million Green New Deal fund, to be invested in projects to boost green jobs, tackle the climate emergency and address inequalities.⁸⁹ Additional financial support for the Green New Deal will come from London boroughs' budgets which are aligned with the missions work.

The Green New Deal funding supports the Mayor's 'Future Neighbourhoods 2030' programme which invites London boroughs', Business Improvement Districts and other local partnerships to contribute to a green recovery, by supporting neighbourhoods to become exemplar models of sustainability and innovation.⁹⁰ £3 million is available in the first phase of the programme, with the intention for it to be a £7.5 million programme in total. The programme will drive activity over five sectoral themes, one of which is zero waste and circular economy.

ReLondon's Business Transformation programme and the GLA's Better Futures SME support programme were both referenced in the London Environment Strategy (LES) in a proposal 'to support start-ups and business growth across the economy, including in the low carbon and environmental goods and services sector'.⁹¹ These two programmes have also been recipients of Green New Deal funding, allowing further innovative circular and sustainable products and services to enter the market.

The Greater London Investment Fund (GLIF), launched in June 2019 operates as a £100 million fund of funds, managed by Funding London.⁹² The GLIF's set up was referenced in the Mayor of London's Economic Development Strategy (EDS) and its focus areas are aligned with those of the EDS: cultural and creative industries; financial and business services; life sciences; environmental industries (including circular economy); tech and digital and tourism.⁹³ The fund supports economic growth by providing loan and equity finance for London's SMEs, through its investments in three sub-funds. The GLIF was set up with a £35m grant from the 2014-2020 European Regional Development Fund Programme ("ERDF") and a £7m grant from ReLondon. The remaining sources of finance are a £50m loan from the European Investment Bank and returns from Funding London's previous funds. The GLIF is made up of an equity sub-fund managed by MMC (£14 million of which is ring-fenced for circular economy investments) and two debt sub-funds managed by FSE Group. Two examples of businesses that have benefited from the funds managed by MMC are Whirli⁹⁴ (fully flexible sharing economy platform for children's toys) and Recycleye⁹⁵ (an operating system for the waste management industry that replicates the power of human vision to identify every item in entire waste streams).

Regarding national funding, the LES, 2018 states that 'The Mayor will seek London's fair share of funding from the government's £2.5bn Clean Growth Strategy fund and other national funds. The Mayor also calls on government to devolve to London its share of landfill tax receipts (estimated at around £93m per annum in 2018). This can be used to support local authority activities to cut waste, improve reuse and recycling collection services, and invest in activities supporting London's transition to a circular economy.'

Other good practice identified

City	Policy	Notes	Reference
Hamburg	The Hamburg Investment and Development Bank, an institution owned by the city, provides financial support to businesses that invest in resource efficient measures ⁹⁶	The Bank provides public support for business development and housing and offers innovation support and promotion of environmental protection with low-interest loans, direct subsidies, grants, and advice on funding from the Bundesrat, the federal government, and the European Union ⁹⁷	Governing City Infrastructure, Brookings, 2017
Flanders region	The government of the Flanders region published its Vision 2050 document in 2016. Circular economy is one of the seven transition priorities. One of the key actions in this policy document was for Circular Flanders 'to provide tailored (financial) support for pioneers'.	In 2017 and 2018, Circular Flanders was able to financially support 135 circular economic projects via the "Open Call", supported by 11m euro. One fifth of projects were construction related, with others related to circular procurement and entrepreneurship. The projects were funded by MINA, the Fund for the Prevention and Recovery of the Environment and Nature. A write up can be found in the Circular Flanders Retrospective Report.	Vision 2050 – a long term strategy for Flanders, Flanders State of the Art, 2016 Circular Flanders Retrospective Report 2017 – 2019, Circular Flanders, 2019

3. London policy analysis – sectoral

3.1. Built environment

Context

An estimated 39% of the world's energy related carbon emissions currently come from buildings of which 28% are generated through their use, and 11% from their materials and construction.⁹⁸ Global construction output is projected to grow 85% by 2030. The Global Construction 2030 report states that the UK is the “stand out growth market in Europe” and will be the world's sixth largest construction market by 2030, taking over Germany by 2025 to become the largest market in Europe.⁹⁹

This sector is the largest generator of waste in England, producing over 60 million tonnes of non-hazardous waste each year¹⁰⁰ with up to 15% of materials being wasted during the construction process.¹⁰¹ The London Plan states that 54% of the capital's waste was from the construction industry in 2015.¹⁰²

The Ellen MacArthur Foundation 'Completing The Picture' report showed that adopting circular principles with just four key building materials - cement, steel, plastic and aluminium - could lead to a 40% reduction in carbon emissions by 2050.¹⁰³

Circular approaches in construction focus on improved design including design for disassembly, flexible and adaptable buildings, reuse of building materials, remanufacturing and end of life solutions to reduce carbon emissions.¹⁰⁴

International and national perspective

The second EU Circular Economy Action Plan¹⁰⁵ recognises the construction and buildings sector as a priority sector where the potential for circularity is high. The Action Plan includes commitments such as a new Strategy for a Sustainable Built Environment, replacing the current Construction Strategy, Construction 2020, which will include the following circularity related requirements:

- the possible introduction of recycled content requirements for certain construction products via the Construction Product Regulations;
- measures to improve the durability and adaptability of built assets and developing digital logbooks for buildings;
- using the building assessment scheme level(s) to integrate life cycle assessment in public procurement and the EU sustainable finance framework;

-
- ♦ exploring the appropriateness of setting carbon reduction targets and the potential of carbon storage;
 - ♦ a possible revision of material recovery targets for construction and demolition waste and its fractions, including a focus on insulation; and
 - ♦ initiatives to promote the sustainable and circular use of excavated soils.

C40 have launched a Clean Construction Declaration which aims for Mayors and cities to work together to shift the global construction industry towards a more sustainable future, the key targets being:

- ♦ Reduce embodied emissions by at least 50% for all new buildings and major retrofits by 2030, striving for at least 30% by 2025;
- ♦ Reduce embodied emissions by at least 50% of all infrastructure projects by 2030, striving for at least 30% by 2025; and
- ♦ Procure and, when possible, use only zero emission construction machinery from 2025 and require zero emission construction sites city-wide by 2030.¹⁰⁶

In 2021, Defra, building on the Resources and Waste Strategy, published a consultation draft Waste Prevention Programme for England (Towards a resource efficient economy).¹⁰⁷ This document includes a chapter on construction with an aim to reduce construction waste and increase the reuse of construction materials at their highest value. This means designing buildings for adaptability and deconstruction, increased reuse of components, use of materials that can be reused and recycled, and improved demolition systems.

In February 2020, the UK Construction Leadership Council's Green Construction Board published a definition of 'Zero Avoidable Waste in Construction'.¹⁰⁸ The definition is aligned to circular economy principles in that it includes 'waste being generated at every stage of a project's life cycle, from the manufacture of materials and products, the design, specification, procurement and assembly of buildings and infrastructure through to deconstruction. At the end of life, products, components and materials should be recovered at the highest possible level of the waste hierarchy, i.e. reused before being recycled, whilst ensuring minimal environmental impact.' A route map of how zero avoidable waste can be delivered, identifying recommendations and timescales for industry and for government, will be published in 2021.

Between January and March 2021, the Government consulted on proposed changes to the English National Planning Policy Framework. Amongst other proposals, the consultation sought views on the draft National Model Design Code, which provides detailed guidance on the production of design codes, guides and policies to promote successful design.¹⁰⁹

Circular economy policy levers

Vision and strategy

Current London-wide policy

Circular economy is embedded in the new London Plan, principally through Policy SI7 'Reducing waste and supporting the circular economy' and Policy D3 'Optimising site capacity through the design-led approach', which includes reference to circular economy principles in design.¹¹⁰ Policy SI7 includes a commitment for all planning applications referable to the Mayor to complete a circular economy statement. See road maps and strategies policy lever (part A) section of this report on page 8 for more details.

Examples from other cities

The Amsterdam Circular 2020 – 2025 Strategy¹¹¹ includes the following goal and targets: 'The shared long-term goal of the Dutch government, the Amsterdam Metropolitan Area and the City of Amsterdam is to be 100% circular by 2050, with an intermediate target of a 50% reduction in primary raw materials consumption by 2030. From 2022 onwards, all new urban development (including urban transformation) and public space designs in Amsterdam will be based on circular criteria. This requires collaboration with the people of Amsterdam, the market and other public authorities. Our joint challenge is to reduce the use of primary raw materials in the built environment so that we can meet the 2030 target.'

Capacity building

Current London-wide policy

The London Plan refers to 'the Mayor's Good Growth by Design Programme, which seeks to promote and deliver a better, more inclusive form of growth on behalf of all Londoners – will ensure that homes and other developments are of high quality.'¹¹²

As part of the Good Growth by Design Programme, the GLA have published a Circular Economy Primer.¹¹³ The Primer states that 'As part of the Mayor's Good Growth by Design Programme, the Mayor's Design Advocates and other industry experts have been looking at how to embed circular economy principles into built environment practices and adopt less resource-hungry approaches to the delivery of buildings and infrastructure. London's built environment sector must now adopt this approach in its everyday practice.'

Through the Skills for Londoners Strategy¹¹⁴, the Mayor commits to establishing the Mayor's Construction Academy with the housebuilding industry. This has now been created with the Construction Academy Hubs¹¹⁵ being the connecting point between all the organisations helping develop the workforce, whether employers or training providers, and the people that want to be part of that workforce.

Greater London is a pilot city in an active Horizon 2020 funded project called CIRCuIT - Circular Construction in Regenerative Cities. CIRCuIT aims to bridge the gap between theory, practice and policy by delivering a series of demonstrations, case studies, events and other dissemination activities that showcase how circular construction approaches can be scaled and replicated across Europe to enable cities to build more sustainably and transition to a circular economy on a wider scale. CIRCuIT will be producing detailed recommendations on policy for embedding circular economy in urban planning, with new research and pilot studies.¹¹⁶

Examples from other cities

The Flemish Building Confederation and OVAM launched a Green Deal on Circular Construction in spring 2019. More than 300 organisations registered in two waves. The Green Deal emphasises that a combination of practice and learning is the core of the policy. The participants undertake trials and bring their accumulated knowledge and experience together in a learning network. They test tools, methodologies, and new forms of supply chain co-operation.¹¹⁷

Urban planning

Current London-wide policy

The London Plan includes a requirement for the production of Circular Economy Statements for new planning applications referable to the Mayor. An application is referable to the Mayor given certain criteria including development of 150 residential units or more, development over 30 metres in height (outside the City of London) and development on Green Belt or Metropolitan Open Land.¹¹⁸ The London Plan states that: 'Circular Economy Statements are intended to cover the whole life cycle of development. This will apply to referable schemes and be encouraged for other major infrastructure projects within London. Boroughs are encouraged to set lower local thresholds through Development Plans.'¹¹⁹

The GLA has prepared circular economy statement guidance. A consultation on the draft guidance ended in Jan 2021.¹²⁰ The guidance requires proposals to set out how three core circular economy principles will be achieved:

- Conserving resources, increasing resource efficiency and sourcing sustainably;
- Designing to eliminate waste (and for ease of maintenance); and
- Managing waste sustainably and at the highest value.

The London Plan also references 'the need to develop and manage existing waste management sites to support circular economy activities including developing proposals for materials and waste management sites are encouraged where they: support prolonged product life and secondary repair, refurbishment and remanufacture of materials and assets'. Also, that 'Waste processing facilities should be well designed... Developments supporting circular economy outcomes such as reuse, repair and re-manufacture, will be encouraged'.

The London Plan states that 'The Mayor wants to retain the economic value of London's waste within London and ensure that London can manage net 100% of its waste within the city by 2026.'¹²¹

Within London, the 32 London boroughs and City of London develop their own local development plans. Please see the London boroughs section of this report on page 45 for examples of how these plans are incorporating circular economy policy.

Examples from other cities

The Amsterdam Circular Strategy 2020 – 2025 states that 'The City's spatial planning policy provides for locations for circular services based on innovative concepts'.¹²² The Amsterdam policy includes the aim that 'platforms and services for sharing, loaning, refurbishing, and repairing should be just as easily accessible as the current stores that sell new, non-circular products'.

The Glasgow Circular Economy Route Map¹²³ includes an action to undertake a baseline audit of council property to identify under-utilised and vacant premises. This should identify which premises could be made open or available for organised sharing purposes, circular innovation, circular business start-ups, or other actors in the circular and social economy. The route map also suggests 'Following on from audit of unused Glasgow City Council estate [stakeholders should] identify those properties suitable for use as Community Innovation hubs. This would include those properties that are both multi-functional and multi-sectoral to support any circular innovation.'

The City of Vancouver in their Greenest City Action Plan¹²⁴ have an action to 'Increase the diversion of wood waste from landfill and incineration by expanding the Construction and Demolition (C&D) Waste Diversion Strategy to increase reuse and recycling of C&D waste. This action includes fully implementing green demolition policies aimed at achieving at minimum 75% recycling of demolition waste from pre-1940 homes, expanding the regulation to include demolition waste recycling requirements for all home demolitions regardless of age, and supporting Metro Vancouver's disposal ban on clean wood waste'.

Asset management

Current London-wide policy

The London Environment Strategy states that 'The Mayor wants to see London's waste sites optimised to support circular economy activities like reuse and repair, providing environmental and social benefits by creating new jobs and apprenticeships.'¹²⁵

Examples from other cities

The Glasgow Circular Economy Route Map¹²⁶ includes the following commitments:

- Consider the widespread provision of growing spaces throughout the city making use of vacant and derelict land and properties. Carry out a land audit to identify suitable locations; and
- Baseline audit of council property to be undertaken to identify under-utilised and vacant premises. This should identify which premises could be made open or available for organised sharing purposes, circular innovation, circular business start-ups, or other actors in the circular and social economy. Following on from audit of unused GCC estate identify properties suitable for use as Community Innovation hubs. This would include those properties that are both multi-functional and multi-sectoral to support any circular innovation.

Public procurement

Current London-wide policy

The London Responsible Procurement Implementation Plan¹²⁷ includes the following actions:

- 'Deliver Social Value and Good Growth through the Mayor's built environment projects by commissioning contracts in line with the forthcoming Good Growth commissioning excellence guidelines'; and
- 'Ensure that all GLA built environment projects funded by the Mayor undertake a design review with the London Review Panel, or equivalent design review process accredited by the London Quality Review Charter, at least once in their life cycle'.

Examples from other cities

The City of Vancouver, in its Zero Waste 2040 Strategic Plan,¹²⁸ has an action to develop a template zero waste procurement standard. The Strategy states: 'This initiative involves convening supply chain and design professions, academic institutions, and manufacturing, construction and recycling trade associations to develop a Template Zero Waste Procurement Standard, to stimulate supply and demand in support of a circular economy and raise awareness in Vancouver of industry best practices. The initial focus will be on a standard applicable for the City's procurement of goods and services, which could then be adopted for use by other sectors and material types including construction, food and food services.'

3.2. Food

Context

Food has impacts on health and our global and local environments. The COVID-19 pandemic has brought the fragility of our food supply chains into the public awareness.¹²⁹

WRAP has calculated that food waste from households and businesses is still around 9.5 million tonnes (Mt), 70% of which was intended to be consumed by people, 30% being 'inedible' parts. The food that could have been eaten (6.4 Mt) would make the equivalent of over 15 billion meals – enough to feed the entire UK population 3 meals a day for 11 weeks.¹³⁰

According to the London Environment Strategy (LES), food and green garden waste account for 23% of London's municipal waste and food.¹³¹ London produces around 1.5 – 1.75m tonnes of food waste with a value of £2.55bn a year.¹³² Food is responsible for approximately 10% of London consumption-based emissions.¹³³

A circular economy approach to food aims to produce food regeneratively and locally, where possible, and reduce wastage of food at every stage of the supply chain.

International and national perspective

The UN's Sustainable Development Goal 12.3 is to halve food waste by 2030.¹³⁴ To achieve this in the UK, further reductions in food waste of 1.8 Mt are needed: 1.3 Mt from homes and over half a million tonnes from across the supply chain.

The Resources and Waste Strategy (RWS) for England¹³⁵, 2018, includes a wide range of policy measures pertaining to reducing food waste including:

- 'The Government will set up a pilot scheme to reduce food waste, supported by a £15 million fund. The pilot scheme will be developed in collaboration with businesses and charities and will launch in 2019;
- Consult on seeking powers for mandatory food waste prevention targets for appropriate food businesses and for surplus food redistribution obligations to be introduced subject to progress made by businesses to reduce food waste;
- Publishing a new food surplus and waste hierarchy. The new guidance on GOV.UK offers advice on how to comply with the hierarchy and tools to do so. We expect more surplus food to be redistributed as a result, leading to better environmental outcomes.'

In 2021, Defra published a consultation draft Waste Prevention Programme for England (Towards a resource efficient economy)¹³⁶. This document includes a chapter on food with an aim to reduce food waste in the home and across the supply chain and take forward key policy commitments in this area including for certain businesses to measure, report, and act on food waste.

The Courtauld Commitment 2025¹³⁷, coordinated by WRAP, is a UK voluntary agreement that brings together organisations across the food system to make food and drink production and consumption more sustainable. At its heart is a ten-year commitment to identify priorities, develop solutions and implement changes to cut the carbon and waste associated with food and drink by at least one-fifth in 10 years, and to reduce water stress. The Commitment is supported through the Resources and Waste Strategy (RWS) and the Mayor of London is a signatory.

In October 2019, C40 published its Good Food Cities Declaration¹³⁸. The declaration asks cities to align food procurement policies to the Planetary Health Diet ideally sourced from organic agriculture, and support an overall increase in healthy plant-based food consumption in our cities, by shifting away from unsustainable, unhealthy diets. It also asks them to reduce food loss and waste by 50% from 2015 figures and work with citizens, businesses, public institutions and others to develop a joint strategy for implementation, while achieving these goals inclusively and equitably and incorporating this strategy into city Climate Action Plans. The Mayor of London signed up to the Good Food Cities Declaration in 2019.

The Ellen MacArthur Foundation published the 'Cities and Circular Economy for Food' report in 2019. The Foundation is now working with key actors to stimulate a global shift towards a regenerative food system based on the principles of a circular economy. More than 20 cities are engaged with them on a journey to a circular economy for food with London, New York, and São Paulo as strategic partners in the initiative.¹³⁹ Over three years, ReLondon and the Greater London Authority, in partnership with the Foundation, will bring together public and private stakeholders to implement pioneering circular food systems as part of this initiative to spark a food system transformation that will help tackle the climate crisis, generate new jobs, build supply chain resilience, and improve human health and community wellbeing.

Circular economy policy levers

Vision and strategy

Current London-wide policy

In the London Environment Strategy (LES), the Mayor of London (the Mayor) states he will go further than the Courtauld Commitment 'by setting a 50% [food waste] reduction per head target by 2030, in line with emerging Sustainable Development Goal 12.3 reduction targets, and sign up as 12.3 Champion'. This reduction also fits with the targets set by the Good Food City Declaration.

In the LES, the Mayor also states that he 'wants London to be a zero-waste city – one that makes the best use of all its waste where market opportunities exist to recover value from it. This means ensuring London sends no biodegradable or recyclable waste to landfill by 2026.'

The Mayor published a non-statutory London Food Strategy in 2018.¹⁴⁰ One of the six aims of the strategy is to 'reduce the environmental impact of our food system by making it more efficient, more sustainable and less wasteful'.

The London Food Strategy includes the following commitments: 'What the Mayor will do to support change:

- ♦ Work with initiatives that develop training programmes to support people to set up food growing enterprises;
- ♦ Through the London Food Board¹⁴¹, work with partners to explore the potential to integrate more SME food producers into GLA Group and public sector contracts;
- ♦ Work with organisations to develop bids to the Good Growth Fund to invest in the emerging nature-friendly farming sector, in order to help London become a leader in green circular economy jobs.'

Examples from other cities

In 2015 the City of Milan published a Food Policy that 'acts on the urban food system with a multidimensional approach around 5 key priorities, 16 guidelines, 18 actions: food losses and waste reduction being one of the most important, engaging several local actors such as research centers, food businesses, food banks, non-profit organisations, foundations'. A review of the policy in 2020 gives an update on progress including the creation of four food hubs and food diverted from school canteens and markets.¹⁴²

The Los Angeles Green New Deal Sustainability pLAN 2019¹⁴³ includes the following commitments

- ♦ 'Ensure all low-income Angelenos live within ½ mile of fresh food by 2035;
- ♦ Increase the number of urban agriculture sites in L.A. by at least 25% by 2025; and 50% by 2035; and
- ♦ Prepare for natural disasters by increasing the resiliency of our food systems infrastructure.'

The 2020 Food Metrics Report published by New York City provides a brief overview of the production, processing, distribution, and consumption of food provided by city agencies to communities across all five boroughs and highlights the progress the city is making towards building a resilient and equitable food system.¹⁴⁴

The Circular Amsterdam Strategy 2020 - 2025¹⁴⁵ includes the following statement: 'Amsterdam strives to increase the consumption of regional products. Therefore, we will work with businesses in the food chain to start better adapting regional food production to regional needs before 2025, for example by promoting circular agriculture. Urban agriculture also has a place in the city; with a focus mainly on the social function: awareness, participation and connection'.

Awareness raising

Current London-wide policy

The LES¹⁴⁶ states that 'Through working with C2025 [Courtauld 2025] members¹⁴⁷, ReLondon, waste authorities and other relevant parties, the Mayor will support campaigns, including Recycle for London¹⁴⁸, Love Food Hate Waste¹⁴⁹ and Trifocal¹⁵⁰ to help Londoners and businesses to reduce waste. The Mayor will apply lessons and best practice taken from previous programmes, such as the GLA's Foodsave¹⁵¹ programme. Other current awareness raising programmes include the Peas Please¹⁵² campaign and FoodWave¹⁵³ where London's involvement is led by ReLondon.'

Examples from other cities

The City of Amsterdam in its Circular Strategy¹⁵⁴ states that 'The City and chain partners are working together to encourage Amsterdam's residents to eat healthier and more sustainably through awareness-raising campaigns and the Amsterdam Approach to Healthy Weight (Amsterdamse Aanpak Gezond Gewicht¹⁵⁵). We are also looking at whether we can change the policy for advertisements in public spaces so that there more attention is paid to healthy, sustainable food and less attention to unhealthy food with a large ecological impact'.

Capacity building

Current London-wide policy

The London Plan states that 'The Capital Growth network is London's food growing network, which continues to promote community food growing across the capital, as well as delivering food-growing skills and employment opportunities for Londoners'.¹⁵⁶ The network is supported by the Mayor and delivered by the charity Sustain.¹⁵⁷

The Mayor supports ReLondon's Business Transformation programme¹⁵⁸ through the Green New Deal¹⁵⁹ funding. As of February 2021, approximately 33% (~70 businesses) of the Business Transformation programme's business portfolio are food related. ReLondon support businesses who are already circular to scale up as well as those transitioning to be circular from a linear business model.

Examples from other cities

The Glasgow Food Growing Strategy 2020 - 2025¹⁶⁰ includes a 'vision that Glasgow citizens wishing to grow their own fruit and vegetables will have access to a range of community growing opportunities in their area'. The strategy includes actions to increase growing spaces, get simpler access to growing spaces, get community support and capacity building, get funding and review and monitor the strategy.

Urban planning

Current London-wide policy

The London Plan¹⁶¹ states that 'In Development Plans, boroughs should: 1) protect existing allotments and encourage provision of space for urban agriculture, including community gardening, and food growing within new developments and as a meanwhile use on vacant or under-utilised sites 2) identify potential sites that could be used for food production.'

The London Plan continues 'As provision for small-scale food growing becomes harder to deliver, innovative solutions to its delivery should be considered, such as green roofs and walls, re-utilising existing under-used spaces and incorporating spaces for food growing in community schemes such as in schools. Where sites are made available for food growing on a temporary basis landowners/developers will need to be explicit over how long sites will be available to the community.'

Examples from other cities

The City of Hamburg has a Green Roof Strategy.¹⁶² The strategy's target was to plant a total of 100 hectares of green roof surface in the metropolitan area in the next decade. The Hamburg Ministry for Environment and Energy provided €3 million financial incentives for the creation of green roofs from 2015-2019. Urban farming and gardening was one of the options considered in the strategy for the use of green roofs.

Public procurement

Current London-wide policy

The GLA's Responsible Procurement Policy (RPP)¹⁶³ covers everything the GLA Group buys although food is not mentioned specifically in the RPP or its implementation plan.

The London Food Strategy¹⁶⁴ states that the GLA will 'lead by example by promoting the use of sustainably and ethically-sourced food across the GLA Group, helping to reduce the contribution of food to climate change.'

Examples from other cities

In the Milan 2015 – 2020 Food Policy Guidelines¹⁶⁵, the city of Milan states that 'The Municipality shall have an active direct or indirect role in providing healthy food produced in a sustainable way that caters to several categories: students, elderly people, vulnerable groups and city employees.' The city worked with The Cool Food Pledge which supports organisations to track and reduce the climate impact of the food they serve. In Milan, with the support of World Resources Institute it was possible to certify a 20% reduction in CO2 emissions from school canteen menus in 5 years.¹⁶⁶

The City of Turku has set targets to contribute to the city's carbon neutrality goal and decrease the life cycle emissions of food services in the city group.¹⁶⁷ The strategic procurement department set the following objectives, which would allow 25% reduction of GHG emissions of food services by 2029:

- ♦ Reducing food loss from 12% to 6%; and
- ♦ Doubling the proportion of vegetarian meals from 24% to 48%.

Fiscal measures

Current London-wide policy

The Mayor has previously used his voice to call for national fiscal measures which support a circular economy, although not in relation to food specifically. For example, the LES states that 'The Mayor is calling for action on the priorities set out below: Packaging - set minimum standards of design for reuse and recyclability, and strengthen Extended Producer Responsibility requirements for packaging materials, specifically plastics.'¹⁶⁸

Examples from other cities

In 2018, the City of Milan adopted a tax reduction related to the donation of surplus food¹⁶⁹.

The regulation works by reducing 20% of [Italy's waste] tax for the first year in favour of food businesses (supermarkets, restaurants, canteens, producers etc.) that donate their food surplus to charities.

3.3. Textiles

Context

Between 2000 and 2015 clothing production approximately doubled worldwide; meanwhile, the number of times a garment is worn before it is thrown away declined by 36% during that time. This results in an increase in the consumption of virgin materials, waste and associated consumption-based emissions for textiles.¹⁷⁰

The European Environment Agency states that 'Between 1996 and 2018, clothing prices in the EU dropped by over 30%, relative to inflation. Since 2000, Europeans have purchased more pieces of clothing but spent less money in doing so'.¹⁷¹ The fashion industry is on track to be using 25% of the globe's carbon budget by 2050 – it is the most aggressively growing sector in terms of its consumption and waste of resources.¹⁷² Around 227,000 tonnes of textile waste is discarded in London every year, creating approximately 5% of London's consumption-based emissions.¹⁷³

The COVID-19 pandemic resulted in closure of international second-hand textile markets and subsequently the price of such textiles dropped, illustrating London and the UK's reliance on external markets.¹⁷⁴

Circular approaches to textiles and clothing help to reduce waste and CO2 emissions through more durable design, different business models that keep clothes in use for longer, new ways of collecting, re-using and recycling clothing and moving to more renewable materials.¹⁷⁵

International and national perspective

The European Union is developing a strategy for textiles, as part of the EU Circular Economy Action Plan,¹⁷⁶ which will include eco-design measures, ensuring the uptake of secondary raw materials, tackling the presence of hazardous chemicals and empowering business and private consumers to choose sustainable textiles and get easy access to reuse and repair services. From 2025, EU member states will be required to collect textiles separately and ensure that waste collected separately is not incinerated or landfilled. A period of consultation on a roadmap to the strategy was held in January 2021.

The Resources and Waste Strategy (RWS)¹⁷⁷ for England published in 2018 states that 'By the end of 2025 we will have reviewed and consulted on measures such as Extended Producer Responsibility (EPR) and product standards for five new waste streams, two of which we plan to complete by 2022.' The five waste streams identified are textiles, bulky waste, certain types of construction waste, vehicle tyres and fishing gear. It is not yet clear which streams will be prioritised.

In 2021, building on the RWS, Defra published a consultation draft Waste Prevention Programme for England: Towards a Resource Efficient Economy.¹⁷⁸ This document includes a chapter on textiles with an aim to address the negative environmental impacts of the textiles sector and fast fashion, including by supporting more sustainable design, improved consumer information, new business models and better recycling.

The UK Environmental Audit Committee undertook an inquiry in 2018: Fixing fashion: clothing consumption and sustainability.¹⁷⁹ In 2020, the committee chose to revisit the issue to monitor progress due to continued concerns around the environmental impact of the fashion industry and working conditions in UK garment factories.¹⁸⁰ The Government rejected most of the committee's recommendations in 2019, which ranged from a producer responsibility charge to pay for better clothing collection and recycling to requiring due diligence checks across fashion supply chains to root out forced or child labour.

There are a number of initiatives led by the non-governmental organisations that support both policy development and action on circular textiles at the business level. Textiles 2030 is WRAP's expert-led initiative, harnessing the knowledge and expertise of UK leaders in sustainability to accelerate the whole fashion and textiles industry's move towards circularity and system change in the UK.¹⁸¹ Launched in April 2021, this new voluntary agreement builds on the learning and success of the Sustainable Clothing Action Plan (SCAP 2020) and aims to engage the majority of UK fashion and textiles organisations in collaborative climate action. The aims of Textiles 2030 are:

- Reduce the aggregate GHG footprint of products sufficient to limit global warming to 1.5oC (40-50%), in line with the Paris Agreement on climate change;
- Reduce the aggregate water footprint of new products sold by 30%; and
- Through collaboration, create and deliver a UK-wide Roadmap for Circular Textiles.

In May 2017, Make Fashion Circular was launched by the Ellen MacArthur Foundation.¹⁸² The initiative brings together leaders from across the fashion industry, including brands, cities, philanthropists, NGOs, and innovators. Its aim is to stimulate the level of collaboration and innovation necessary to create a new textiles economy, aligned with the principles of the circular economy.

Circular economy policy levers

Vision and strategy

Current London-wide policy

The London Environment Strategy (LES) states that 'The Mayor [of London] aims to make London a zero waste city. By 2026 no biodegradable or recyclable waste will be sent to landfill, and by 2030 65% of London's municipal waste will be recycled'.¹⁸³

Examples from other cities

The Catalonia Department of Territory and Sustainability have set a specific goal within their Action Plan for the textile sector in Catalonia. The goal is to build up a Circular Economy Voluntary Agreement in the textile sector, starting with a core group of companies, public administrations and other relevant actors and evolving into a bigger group of around 50 actors from all links of the value chain.¹⁸⁴

The City of Vancouver's Zero Waste 2040 strategy includes a priority action to develop an 'Apparel waste reduction strategy'. This strategy will build on work carried out in the city since 2016 with Leverage Lab Collaborative, a multi-stakeholder problem-solving initiative that brings industry, government, and non-profit organisations together to understand the challenges and opportunities for reducing apparel waste.¹⁸⁵

In 2017, as part of the "transition agenda circular economy of the Dutch Government", members of the Dutch textile industry formulated a roadmap towards circular textiles. The roadmap sets out a vision and ambition against five tools: innovation capacity; supply chain collaboration; development and sharing knowledge; new business models and financing and government policy.¹⁸⁶

Awareness raising

Current London-wide policy

Although textiles are not specifically mentioned, the LES states that ‘Through working with C2025 members, ReLondon and Resource London, waste authorities and other relevant parties, the Mayor will support campaigns, including Recycle for London, Love Food Hate Waste, and Trifocal to help Londoners and businesses to reduce waste. The Mayor will apply lessons and best practice taken from previous programmes, such as the GLA’s Foodsave programme’.¹⁸⁷

Examples from other cities

In 2019, the New York City Department of Sanitation, New York City Economic Development Corporation, collectors, recyclers, resale companies, and Make Fashion Circular ran a three month campaign called #WearNext – a city-wide effort to tackle waste and pollution in the fashion industry.¹⁸⁸ Brands involved included ASOS, Athleta, Banana Republic, Gap, H&M, Reformation and Zara.

Capacity building

Current London-wide policy

The Skills for Londoners Strategy states that ‘London needs good quality adult education to encourage people to continue their learning through life. This enables them to develop the skills needed to access employment, progress in work and respond to the changing demands of an economy that is becoming more automated, lower carbon and more circular in nature. It is important that this transition is just and fair so investing in people and their skills will be essential in the years ahead to ensure that Londoners are able to partake in and benefit from this transition.’

Examples from other cities

The City of Toronto in its Long Term Waste Management Strategy¹⁸⁹ makes a recommendation to ‘better promote and facilitate the reduction and reuse of waste materials, including textiles, to prevent waste from entering the system and requiring management through collection, processing and/or disposal’.

The city provides workshop spaces to encourage repair and reuse of clothing and other textiles to help reduce the amount of textiles discarded each year. Activities include regular instruction on the basics of alterations and repairs and opportunities to make and design clothes from repurposed textiles. The programme also provides an opportunity for residents to access tools, equipment and supplies needed to repair their own clothing. As of the end of 2020, over 1,379 kilograms of clothing and textiles have been diverted from landfill and 504 sewing classes and workshops have taken place through the programme.¹⁹⁰

Public procurement

Current London-wide policy

The GLA's Responsible Procurement Policy (RPP)¹⁹¹ covers everything the GLA Group buys although textiles are not mentioned specifically in the RPP.

The London Responsible Procurement Implementation Plan 2018 -2020¹⁹² states that: 'From 2018, the Metropolitan Police Service and London Fire Brigade will collaborate to identify and establish circular economy pilots within the National Uniforms Managed Service¹⁹³ contract'. Further details are provided in the procurement lever section on page 20.

Examples from other cities

The Netherlands Ministry of Defence and Police force have switched to circular procurement of uniforms.¹⁹⁴ This has prevented the annual incineration of old uniforms, reducing waste and saving tens of millions of euros.

Financial support

Current London-wide policy

The ReLondon Business Transformation programme (formerly Advance London) and Better Futures programme are referenced in the LES in a proposal 'to support start-ups and business growth across the economy, including in the low carbon and environmental goods and services sector'.¹⁹⁵ Both programmes are ERDF funded and have been recipients of Green New Deal funding to provide further services to business as part of London's COVID-19 recovery.¹⁹⁶

As of March 2021, approximately 20% (~ 200 businesses) of the Business Transformation programme's business portfolio were textiles related. Better Futures has already helped more than 150 businesses create hundreds of green-collar jobs in the low-carbon and circular industries in London.¹⁹⁷

Examples from other cities

In 2017, as part of the "transition agenda circular economy of the Dutch Government", members of the Dutch textile industry formulated a roadmap towards circular textiles. The Dutch roadmap was accompanied by an innovation fund financed by the sector and government to accelerate the transition.¹⁹⁸ The roadmap states that 'An innovation fund for and by the sector, financed by the sector and the government, offers opportunities for break-through technologies that accelerate the transition process'.

3.4. Plastics

Context

The profile of plastics usage globally has increased dramatically in the last two years, in no small part due to the 'Blue Planet' programme effect. Public awareness has grown, and UK policy shifts have followed (see International and National perspective section below).

The EU Plastics Strategy states that 'Global production of plastics has increased twentyfold since the 1960s, reaching 322 million tonnes in 2015. It is expected to double again over the next 20 years.'¹⁹⁹

Nearly 70% of all plastic waste in the UK is packaging. The amount of plastic packaging recycled in the UK has increased from 44% in 2018 to 50% in 2019 with average recycled content having increased from 9% in 2018 to 13% in 2019.²⁰⁰

Plastic has one of the highest carbon footprints in the municipal waste stream (along with food and textiles) and makes a material contribution to London's consumption-based GHG emissions.²⁰¹ It also makes up approximately 9% of household waste in London.²⁰²

ReLondon's 'Reducing single-use plastic consumption' report²⁰³ details evidence of an increase in the use of single use plastics, especially personal protective equipment (PPE) such as masks and gloves, during the COVID-19 pandemic. Retailers and coffee chains ceased accepting refillable containers and removed front-of-house water refill points, while policies on offering reusables in restaurants, coffee chains and other eateries were abandoned, in lieu of compulsory single-use alternatives. With support from City to Sea's #ContactLess Coffee campaign, several coffee shops are refilling customers' cups again including Starbucks and Costa. At this time, it is not possible to ascertain the long term impacts on plastics consumption that the pandemic has had.

A circular approach to plastics aims to eliminate unnecessary plastic packaging through redesign, reuse and new delivery models and make all necessary plastic 100% reusable, recyclable or compostable.²⁰⁴

International and national perspective

The European Commission launched the EU Plastics Strategy in 2018 which aims to make all plastic packaging across Europe recyclable or reusable by 2030.²⁰⁵ It also includes aims on reducing single-use plastics, and bans on certain types of plastics, and aims to transform the plastics system by ensuring the design and production of plastics and plastic products fully respect reuse, repair and recycling needs and more sustainable materials are developed and promoted.

The Resources and Waste Strategy (RWS) for England, 2018 commits 'to work towards all plastic packaging placed on the market being recyclable, reusable or compostable by 2025'.²⁰⁶ Consultations on an updated Extended Producer Responsibility (EPR) for packaging²⁰⁷, and Deposit Return Scheme (DRS)²⁰⁸ for drinks containers were held in 2019 and in 2021. A tax on the production and import of plastic packaging with less than 30% recycled content will be introduced in April 2022.²⁰⁹ The RWS also commits to 'Delivering on the Greening Government Commitments, including removing consumer single-use plastics from our estate by 2020'.

The RWS states that in relation to the EU plastics strategy and Directive ‘We will match or where economically practicable exceed the Directive’s ambition’.

In 2021, building on the RWS, Defra published a consultation draft Waste Prevention Programme for England: Towards a Resource Efficient Economy.²¹⁰ This document includes a chapter on packaging, plastics and single-use items with an aim to encourage a shift away from hard to recycle and single-use products, and support research and innovation into more sustainable materials and systems, reducing litter and plastic pollution as well as conserving material resources.

In October 2018, in collaboration with the UN Environment Programme (UNEP), the New Plastics Economy Global Commitment was launched by the Ellen MacArthur Foundation, uniting more than 500 organisations behind a common vision and an ambitious set of targets to address plastic waste and pollution at its source, by 2025.²¹¹ The UK manifestation of this vision is the UK Plastics Pact led by WRAP and delivered in partnership with plastics producers, brands, retailers and recyclers.²¹²

Circular economy policy levers

Vision and strategy

Current London-wide policy

The London Environment Strategy (LES) states that ‘The Mayor aims to make London a zero waste city. By 2026 no biodegradable or recyclable waste will be sent to landfill, and by 2030 65% of London’s municipal waste will be recycled’.

Examples from other cities

City of Oslo has published an Action Plan to Reduce Plastic Pollution in the Oslo Fjord, 2019-2020²¹³. Oslo’s long-term goals for the city’s work on reducing plastic pollution are that by 2022 all use of unnecessary, single-use, plastic articles in Oslo will be phased out. This applies to both the city’s municipal bodies and the city in general.

Glasgow City Council has published a Plastics Reduction Strategy.²¹⁴ The strategy includes an action plan for Glasgow to be free of single use plastics by 2022 with actions for the Council, wider city and national stakeholders and residents. The strategy includes a wider vision for the city to be free of unnecessary plastic by 2030.

Convening and partnering

Current London-wide policy

Although not specific to plastics, the Mayor uses his convening powers to bring together experts on other topics such as food, via the London Food Board and the Courtauld Commitment.

The LES states that the ‘Mayor will work with City to Sea, the Zoological Society of London (ZSL), and other partners to use the insights from the pilots to inform the roll out of a London-wide water refill scheme.’ Further detail is provided in the awareness raising section on the following page.

Examples from other cities

As set out in its Action Plan to Reduce Plastic Pollution in the Oslo Fjord²¹⁵, the City of Oslo has launched a Plastic Manifesto²¹⁶ to engage the private sector on plastic. The Plastic Manifesto is a declaration of intentions made by participating companies, outlining a company’s plastic reduction targets and objectives. The City of Oslo (in partnership with other stakeholders) also provides participating companies with the tools, guidance, and resources that they need to successfully achieve the Manifesto’s intentions.

Six cities globally have signed up to the Ellen MacArthur Foundation New Plastics Economy Global Commitment, those being Copenhagen (Denmark), Ljubljana (Slovenia), Austin (USA), Buenos Aire (Argentina), Sao Paulo (Brazil) and Toluca (Mexico) as reported in their Global Commitment 2020 Progress Report.²¹⁷

Awareness raising

Current London-wide policy

The LES includes a policy which states the Mayor will support campaigns and initiatives to cut the use of single-use packaging.²¹⁸ The detail of the policy concentrates on coffee cups and plastic bottles. The Mayor worked with the national Refill campaign²¹⁹ to promote Refill London²²⁰, and has partnered with Thames Water to install a network of more than 100 drinking water fountains in busy and accessible areas of London with the aim of significantly reducing single use water bottles in London. Both partners have contributed £2.5m.²²¹ The scheme has resulted in c.4000 sites advertising free water refills across London.

The LES also states 'Through working with C2025 members, ReLondon, waste authorities and other relevant parties, the Mayor will support campaigns, including Recycle for London, Love Food Hate Waste, and Trifocal to help Londoners and businesses to reduce waste.'

At the moment a variety of London borough level policies and commitments to becoming plastic free or introducing low plastic zones exist (e.g. London Borough of Hackney, Low Plastic Zone Dalston²²², City of London, Plastic Free City Award²²³).

Examples from other cities

In 2016, the City of Freiburg (Germany) and the public company in charge of waste prevention and collection services, launched the Freiburg Cup, a to-go reusable cup. 145 businesses (over 70% of the sector) participate in this scheme. The initiative was backed by the Mayor of Freiburg.²²⁴

Amsterdam City Council is doubling the number of water fountains in parks and public places to 500 as part of the city's campaign to reducing obesity by making it convenient for children to drink water rather than buy fizzy drinks.²²⁵

The City of Sydney is delivering a 'no plastics pledge'. Industry leaders from the hospitality, events and property sectors have come together to sign up to the Sydney Single-use Pledge. So far more than 30 organisations have signed the pledge including Sydney Opera House, Fox Studios and Star Entertainment Group.²²⁶

Public procurement

Current London-wide policy

The London Responsible Procurement Policy (RPP)²²⁷ covers all product categories. The Responsible Procurement Implementation Plan²²⁸ states that 'From 2019, GLA will update the GLA Events Sustainability Policy to align with the RP Policy and mainstream the new approach to events sustainability for all GLA led relevant procurement projects'.

Examples from other cities

In its 'Action Plan to Reduce Plastic Pollution in the Oslo Fjord, 2019-2020' the City of Oslo commit to 'Include requirements for reduced use of single-use plastic products in new procurement framework agreements and other municipal purchasing agreements'. The same plan requires that the use of unnecessary, plastic, single-use articles be reduced when municipal property is rented out for events.²²⁹

The Foreign & Commonwealth Office (FCO) committed to eliminating avoidable single-use plastics from its UK operations by the end of 2018, and from its global operations by 2020.²³⁰

Fiscal measures

Current London-wide policy

The Mayor has previously used his voice to call for national fiscal measures which support a circular economy. The LES²³¹ states that 'The Mayor is calling for action on: Packaging - set minimum standards of design for reuse and recyclability, and strengthen Extended Producer Responsibility requirements for packaging materials, specifically plastics.' In the LES the Mayor also commits to 'work with partners to trial a deposit return scheme for plastic bottles and other commonly recycled materials in London, while government decides what it will do at a national level'.

Examples from other cities

In Germany, deposit return schemes have led to 97% of all plastic bottles (and 97% of cans) returned, compared to 43% in the UK.²³²

3.5. Electrical and electronic equipment

Context

The Global E-Waste Monitor 2020 report states that 53.6 Mt of e-waste was created globally in 2019, an average of 7.3 kg per capita. By 2030, global e-waste is projected to grow to 74.7 Mt, almost doubling in only 16 years. Europe ranked first worldwide in terms of e-waste generation per capita, with 16.2 kg per capita. The value of raw materials in the global e-waste generated in 2019 is equal to approximately \$57 billion USD²³³.

In the UK, around two million tonnes of electrical and electronic equipment (EEE) are placed on the market each year with 1.53 million tonnes of waste EEE (WEEE) being generated in 2015.²³⁴

In 2015, it was estimated that the total of EEE consumption for London was 273,000 tonnes per year, and separately collected WEEE was 90,000 tonnes, but the actual amount could be higher or lower than this.²³⁵ It is estimated that EEE makes up approximately 5% of London's consumption-based emissions.²³⁶

The growing amount of e-waste (WEEE) is being created by higher consumption rates of electrical and electronic equipment, short product lifetimes and few repair options. A circular approach to electricals looks to keep electrical and electronic devices in use for longer (by one of many users) with support from cloud computing opportunities. A circular approach looks to products and components to be cascaded from high end products to lower performance applications. Eventually, all electrical and electronic products would be recycled and reused in new products.²³⁷

Repair and reuse contribute to a low carbon economy and generate economic activity, employment and social value as does the recovery of valuable materials through recycling. Too much of this value is currently lost through inappropriate disposal and storage of unused products and more could be realised by greater levels of repair, reuse and recycling.

International and national perspective

The European Commission is creating a 'Circular Electronics Initiative'²³⁸. The initiative will promote longer product lifetimes and include the following actions:

- ♦ regulatory measures for electronics and ICT including mobile phones, tablets and laptops under the Ecodesign Directive so that devices are designed for energy efficiency and durability, reparability, upgradability, maintenance, reuse and recycling;
- ♦ focus on electronics and ICT as a priority sector for implementing the 'right to repair', including a right to update obsolete software;
- ♦ regulatory measures on chargers for mobile phones and similar devices, including the introduction of a common charger;
- ♦ improving the collection and treatment of waste electrical and electronic equipment; and
- ♦ review of EU rules on restrictions of hazardous substances in electrical and electronic equipment.

In the UK, electrical and electronic products are covered by an extended producer responsibility scheme via the WEEE Regulations which came into force in 2007 and were updated in 2013. Producers have to join a WEEE compliance scheme to comply.²³⁹

The UK Resources and Waste Strategy (RWS)²⁴⁰ published in December 2018 sets out several policies relevant to WEEE. It commits to a review of the WEEE regulations in 2019 and a consultation on changes in 2020 in line with EU regulations on Extended Producer Responsibility (EPR). These reviews have been completed.

In 2021, building on the RWS, Defra published a consultation draft Waste Prevention Programme for England: Towards a Resource Efficient Economy.²⁴¹ This document includes a chapter on electrical and electronic items with an aim to increase levels of collection of Waste Electronic and Electrical Equipment, increase reuse, repair, and remanufacture of electronic and electrical products and develop options to design out waste using ecodesign principles.

Circular economy policy levers

Vision and strategy

Current London-wide policy

The London Environment Strategy (LES)²⁴² includes the Mayor of London's targets that by 2026 no biodegradable or recyclable waste will be sent to landfill, and by 2030 65% of London's municipal waste will be recycled.

The LES also explains that 'More of London's reusable items like furniture, fittings and electrical appliances need to be kept in use. Redistributing them to where they are needed can create local work, keep resource costs down and help reduce poverty'.

Examples from other cities

The Flanders region 'Implementation plan for household waste and comparable industrial waste – summary' includes a target to reuse 7kg of electrical waste per person in the Flanders region by 2022.²⁴³ A previous target of 5kg per person has already been achieved. Reuse is carried out by accredited reuse centres under the De Kringwinkel brand. Further research of reuse in the region has shown that the reuse rate is much higher than previously thought at 33.3kg per person.²⁴⁴

The southern Belgian province of Wallonia has a separate target for reuse of waste electrical items. The Walloon Government Decree requires 2% of WEEE to be 'prepared for reuse' from January 2020. The target covers six categories of waste appliances.²⁴⁵

Capacity building

Current London-wide policy

The Skills for Londoners Strategy²⁴⁶ states that: ‘London needs good quality adult education to encourage people to continue their learning through life. This enables them to develop the skills needed to access employment, progress in work and respond to the changing demands of an economy that is becoming more automated, lower carbon and more circular in nature. It is important that this transition is just and fair so investing in people and their skills will be essential in the years ahead to ensure that Londoners are able to partake in and benefit from this transition.’

Examples from other cities

As set out in the vision section above, the Flanders region has a network of 30 reuse organisations with 135 second-hand shops (De Kringwinkel) across the Flanders region. De Kringwinkel (DK)²⁴⁷ second-hand shops provide work experience training for people who would otherwise be excluded from the labour market. Goods donated by the public are sold in DK shops to part-fund their salaries, providing a dual environmental and social benefit.

The quantity of material reused by DK is measured and included in regional, national, and EU-level targets on reuse and recycling. Local authorities pay DK per kg of material reused as a contribution to waste prevention. The network is currently achieving 78,537 tonnes of reuse with a turnover of £48.6m and employs 5,650 staff, 80% of which were previously unemployed.²⁴⁸

Public procurement

Current London-wide policy

The London Responsible Procurement Policy (RPP)²⁴⁹ covers all product categories. The Responsible Procurement Implementation Plan²⁵⁰ states that ‘From 2019, GLA will update the GLA Events Sustainability Policy to align with the RP Policy and mainstream the new approach to events sustainability for all GLA led relevant procurement projects.’

Examples from other cities

In 2020, Defra published ‘Greening government: ICT and digital services strategy 2020-2025’.²⁵¹ The strategy includes ‘Business rules’ that are a minimum standard for all procurements following the launch of the strategy. Business rule 2 relates to circular economy:

- ‘2020: HMG estates deliver 0% to landfill with an annual increase in reuse and materials recycled. All suppliers have circular ICT policies and strategies and products are routinely designed for durability, ease of maintenance and recycling. Problematic materials and substances have, or are being, phased out of use; and
- 2025: HMG suppliers have established zero waste to landfill or zero-waste targets. Suppliers are meeting targets to incorporate more recycled materials in their products and eliminate the use of single use plastics. There’s a yearly increase in ICT kit purchased/leased that is remanufactured/refurbished.

Financial support

Current London-wide policy

The ReLondon Business Transformation programme (formerly Advance London) and Better Futures programme are referenced in the LES in a proposal 'to support start-ups and business growth across the economy, including in the low carbon and environmental goods and services sector.'²⁵² Both programmes are ERDF funded and have been recipients of Green New Deal funding to provide further services to business as part of London's COVID-19 recovery.²⁵³

As of March 2021, approximately 20% (~ 200 businesses) of the Business Transformation programme's business portfolio were electricals related. Better Futures has already helped more than 150 businesses create hundreds of green-collar jobs in the low-carbon and circular industries in London.²⁵⁴

Examples from other cities

Barcelona City Council's zero waste strategy²⁵⁵ includes 20 actions, one of which is an 'Initiative promoted by the Metropolitan Area of Barcelona to encourage the repair of objects that have not completed their cycle and that can be reused with all the guarantees making this repair.' (Translated)

Millor Que Nou (MQN)²⁵⁶, in English, 'Better than New,' has pioneered an integrated approach to promoting repair and reuse amongst Barcelona residents. In 2006, MQN began life as a listings service for repair businesses. In 2009 the project hired premises and began to offer tools and training to motivate people to repair their own belongings. The venue also acts as an exchange hub for unwanted items.

MQN is funded by the municipality as part of their waste reduction programme. The project processes approximately one tonne of goods per month (including bikes, textiles, carpentry, plumbing, electronic and electrical appliances) of which around 85% is repaired.²⁵⁷

4. London policy analysis – boroughs

Boroughs of London - circular economy policy context

To accelerate London's transition to a circular city it is crucial that policy change and action is delivered at the London borough level as well as city-wide level. The London boroughs (collectively referred to as 'boroughs' in this report) produce their own strategic and statutory plans, including Local Development Plans, Waste Management Strategies, Housing Strategies, Climate Action Plans and procurement policies to ensure they meet the needs of the local context. In some cases, they must also act in general conformity or alignment with the Mayor of London's strategies. Boroughs have an opportunity to develop their own operations and services to be more circular, new developments in the borough and help residents to make choices which accelerate a circular economy and reduce consumption-based CO₂ emissions and waste.

Many London boroughs are already acknowledging the opportunities the circular economy can bring to their area through policy development and direct action. This section provides a selection of examples of good practice from boroughs that are already embedding circular economy across their organisation and looking beyond the role that circular economy plays within waste and recycling.

The London Environment Strategy (LES)²⁵⁸ requires London boroughs to develop reduction and recycling plans by 2020, which should include local reduction and recycling targets that contribute to the Mayor's London-wide targets. The Objectives of Reduction and Recycling Plans (RRP) are to:

- Drive resource efficiency to significantly reduce waste focusing on food waste and single use packaging;
- Maximise recycling rates;
- Reduce the environmental impact of waste activities (greenhouse gas emissions and air pollutants); and
- Maximise local waste sites and ensure London has enough infrastructure to manage all the waste it produces.²⁵⁹

Understanding a borough's consumption-based emissions is important in illustrating the impact that residents can have through their own consumption choices. The importance of boroughs acting to tackle these emissions is raised in the cross-cutting section on roadmaps and strategies (part B) on page 13 of this report.

London Councils is the organisation that collectively represents the 32 boroughs and the City of London, and acts to support, convene and coordinate action across the boroughs. In London, as of April 2021, 28 boroughs have declared a climate emergency²⁶⁰, and 24

had published Climate Action Plans.²⁶¹ The plans often include a recognition of the role that consumption-based emissions have in tackling the climate emergency, and policies which will help move to a low carbon circular economy, however the extent to which consumption-based emissions actions are covered varies greatly between boroughs.

Circular economy policy levers

Vision and strategy

Current London-wide policy

In 2019, London's boroughs committed to reduce consumption-based emissions in London by two thirds by 2030.²⁶² The London Borough of Harrow was appointed by London Councils' Transport and Environment Committee to lead this work, and Harrow will be working with the boroughs and wider partners to publish an action plan by December 2021.

Boroughs have also incorporated circular economy into future visions within other strategic council documents such as climate action plans and environment strategies.

Currently some boroughs have included consideration of scope 3 or consumption-based emissions within their visions and action plans for the future, and 10 have committed to monitoring these emissions. However, there is a wide range in the type of scope 3 or consumption-based emissions being included in such measurements (e.g., emissions from procurement only, waste only, or aviation emissions)²⁶³. Boroughs are working together with London Councils under the Carbon Emissions Accounting Task and Finish Group to develop a common policy standard for scope 1, 2 and 3 emissions accounting and reporting.

London Councils have also published the first annual report on borough-level consumption emission profiles.²⁶⁴

Examples from boroughs

The City of London's Climate Action Strategy²⁶⁵ includes a target to reach net zero scope 3 emissions by 2040. The strategy includes commitment to:

- 'Embrace circular economy principles across our strategies and work;
- Embed circular economy principles into our capital projects and reduce carbon intensity by using life cycle carbon and cost assessment techniques and design specifications;
- Use our planning role to influence others to embed carbon analysis and circular economy principles in capital projects;
- Support organisations in the Square Mile to build circular, low carbon and resilient supply chains; and
- Support financial institutions committing to net zero in the 2040s at the latest, covering all emissions, including scope 3 and where data allows reliable measurement.'

The London Borough of Merton includes a thriving green and circular economy as part of the borough vision for tackling the climate emergency.²⁶⁶ The plan includes several commitments for progress over the coming years. For example, by 2023 the council will consider mechanisms to help address the skills gap in the low carbon economy. The plan also states that progress towards a green economy will be measured by tracking reduction in waste produced with a target of a 75% reduction in local authority-collected waste by 2050.

The London Borough of Bromley has begun measuring consumption-based emissions from council procurement.²⁶⁷

Convening and partnering

Current London-wide policy

Boroughs can use their voice to convene public and private stakeholders and residents to share circular economy learning and promote action. Collaboration across boroughs can create a wider reach and consistent messaging which helps drive commitment and is easier for people to understand and relate to. Boroughs have committed to a variety of actions to convene and partner with stakeholders to deliver action on circular economy and climate change.

Examples from boroughs

The West London boroughs have worked together through their sub-regional partners, West London Alliance to create a high-level circular economy action plan²⁶⁸ identifying two phases for action:

- Developing knowledge and understanding; and
 - Implementing knowledge in real world examples including key outcomes and deliverables for success.
- The draft West London Circular Economy Action Plan sets out how the boroughs can play a partnering and convening role, including:
- Developing a set of circular economy principles and vision that all West London boroughs can sign up to; and
 - Creating a series of forums where circular economy business can meet potential buyers.

The Camden Climate Action Plan²⁶⁹ states that 'In 2021-22 through the Camden Climate Change Alliance, collaborate with major estates and organisations in the borough to promote circular economy opportunities focusing on measurement and the development of projects.'

Sutton's Environmental Strategy and Climate Emergency Response Plan²⁷⁰ identifies other stakeholders that the borough works with (including national government, schools, businesses, waste companies, the Mayor of London, residents and financial institutions) and articulates their role to help deliver the targets and actions within the plan.

Awareness raising

Current London-wide policy

There is anecdotal evidence from boroughs that residents do not understand the link between their behaviour and consumption-based emissions and how circular economy actions can help tackle the climate emergency. Boroughs play an important role in communicating to residents and businesses how lifestyle choices can impact consumption-based emissions and signposting to available circular economy products and services.

Examples from boroughs

Hounslow Climate Emergency Action Plan²⁷¹ includes a commitment to deliver borough wide emissions actions including developing net zero lifestyles with a particular focus on dietary choice, energy efficient appliances, energy procurement, clothing and textiles and aviation.

Sutton's Environment Strategy and Climate Emergency Response Plan²⁷² includes a commitment to: 'Map and promote reuse and upcycling shops, schemes and projects in the borough'.

Capacity building

Current London-wide policy

Local authorities play a critical role in the delivery of local skills and employment services, both as a direct provider of services and as a strategic convener of providers and other partners. A survey by London Councils in December 2020 found that 88% boroughs provide an employment service and 77% provide skills support in addition to Adult Community Learning²⁷³.

Boroughs can increase capacity for residents and businesses to benefit from a circular economy by ensuring borough skills and employment programmes incorporate circular economy opportunities. Boroughs can also help provide training or access to a range of tools to help residents and businesses which increase their ability to take circular economy actions.

Examples from boroughs

Merton's Climate strategy and action plan²⁷⁴ states: 'By 2023, the Council will consider mechanisms to help address the skills gap in the low carbon economy in Merton. Priority areas will likely include skills required to deliver domestic retrofit at scale and repair skills to promote the circular economy.'

The Brent Climate Emergency Strategy²⁷⁵ states: 'There are around 860 businesses in the borough involved in the circular economy. We must aspire to continue to build this sector and support this economic model of operation as a key'.

'We will create apprenticeship and training pathways into the green circular economy (such as construction skills for retrofitting homes) through working in partnership with the United Colleges Group.'

Camden Climate Action Plan²⁷⁶ commits to: Support delivery of the 'Refill Station Camden' project offering residents a refill resource to help tackle single-use packaging, aiming to have a locally run enterprise by the end of 2022.

Urban planning

Current London-wide policy

As the Local Planning Authority, boroughs can use their role to influence local spatial development and require developments to incorporate circular economy to reduce embodied carbon, reduce waste creation and keep materials in use for longer. The requirement for a Circular Economy Statement within the new London Plan (see page 8 of this report) only applies to developments large enough to be referable to the Mayor of London. However several boroughs have already incorporated circular economy requirements (including the statement) into their Local Plans.

Examples from boroughs

Islington's Draft Local Plan²⁷⁷ includes policy SI0 Circular economy and adaptive design which would apply to all developments in the borough.

The City of London Draft Local Plan²⁷⁸ requires: 'A Circular Economy Statement following the London Plan guidance should be submitted for all EIA development. A Circular Economy Statement following the London Plan guidance should be submitted for all Major development. For all other Major development proposals, the sustainability statement should provide evidence of the application of circular economy principles and the adherence to the waste hierarchy. For all other development, the Design and Access statement should demonstrate how waste minimisation and the circular economy have been considered in the design of the development.'

The London Borough of Camden's Local Plan, policy CCI states they will require all proposals that involve substantial demolition to demonstrate that it is not possible to retain and improve the existing building and expect all developments to optimise resource efficiency.²⁷⁹

The London Borough of Camden's Planning Guidance on energy efficiency and adaptation includes a chapter on reuse and resource efficiency. In the guidance pre-demolition audits are requested: 'The development proposal should include a pre-demolition audit identifying all materials within the building and documenting how they will be managed. The preference should be for reuse on site, then reuse off site, remanufacture or recycling. (Providing time in the project plan for selective deconstruction techniques and materials storage to maximise reuse).'²⁸⁰

Asset management

Current London-wide policy

Boroughs can set requirements and standards for the management of their own physical assets, particularly buildings, which incorporate circular economy at all stages of an asset's life. Boroughs can introduce stricter circular economy requirements on their own developments than is possible in their Local Plan. This helps the borough to lead by example, to grow the market for circular/low carbon materials and test new approaches to incorporating circular business models into the built environment.

By ensuring use of borough property is maximised a borough can potentially provide better services to residents, help support the local community and avoid land/property becoming derelict.

Examples from boroughs

The Sutton Environment Plan and Climate Emergency Response Plan²⁸¹ states that it will: 'Publish an assets strategy that aligns council assets with delivery of the corporate plan, including the climate emergency and carbon reduction'.

The City of London Climate Action Strategy²⁸² commits to: 'Determining low-impact (low carbon and other sustainability criteria) materials that are to be used on Corporation capital projects'.

Public procurement

Current London-wide policy

Boroughs determine their own procurement policies, subject to the public procurement legal framework. Utilising borough procurement can help drive supply chain change and illustrate leadership. Public procurement must consider value for money and approaches which look at whole life costings can support this. To scale the size of the opportunity, London local government budgeted to spend a total of £22.3 billion in 2016-17.²⁸³

Adopting circular economy principles in procurement could help boroughs to demonstrate commitment to tackling the climate emergency and consider whole life cycle costings. Several London boroughs have incorporated circular economy principles within their procurement policies.

Examples from boroughs

The London Borough of Bromley's Reduction and Recycling Plan (RPP)²⁸⁴ includes the following commitment: 'Bromley's Sustainable Procurement Policy will include guidelines for considering circular economy principles within the procurement process. We will work with procurement colleagues/ other members of staff conducting procurement exercises to embed the updated Sustainable Procurement Policy.'

Bromley have now updated their Sustainable Procurement Policy²⁸⁵ to include circular economy, and have developed a sustainable procurement tool to help embed circular economy into procurement. ReLondon is working with Bromley to further develop this tool and to make it more widely available to other boroughs.

The London Borough of Camden have committed to the following in their Climate Action Plan²⁸⁶: 'Introduce meat-free days across Council catering contracts from 2020, including schools.'

Financial support

Current London-wide policy

Significant financial investment will be needed to deliver policies and interventions which allow boroughs to implement circular economy measures to reduce consumption-based emissions and waste. Boroughs can identify policies to use their own finances to help support circular economy. Actions which create long term cost savings, or which provide wider benefits to residents may be easier to fund but still need upfront investment from sources other than boroughs.

Boroughs can also look at how their own investments are being used and ensure they are supporting progress towards a low carbon circular economy, rather than contributing to the climate emergency. Boroughs are already committing to investigate a range of funding options to facilitate such actions.

Examples from boroughs

London Borough of Camden Climate Action Plan²⁸⁷ includes the commitment to:

- Explore innovative financing options. Investigate opportunities for initiatives such as crowdfunding, community share offers and climate bonds as a way to unlock capital investment for climate projects; and
- Work together to expand our purchasing power. Explore group-purchasing opportunities with other local authorities, and for Camden residents and organisations. These schemes would make initiatives more affordable, attract an improved supply chain, and unlock delivery at scale.

The Hounslow draft Climate Emergency Action Plan²⁸⁸ includes the following: 'In the longer term the council will work with the borough treasurers committee of London Councils to explore a wide range of possible funding and financing mechanisms to unlock the required investment necessary to respond to the climate emergency. The climate action plan also commits to ensure all Council investments are helping to tackle the climate emergency.' To help deliver this Hounslow will engage with the Collective Investment Vehicle (CIV) to explore opportunities to increase sustainable investing and undertake to completely reevaluate the Council's pension fund and publish opportunities to increase non-CIV investment in causes that help tackle the climate emergency.

Fiscal measures

Current London-wide policy

Fiscal measures can be used to incentivise or discourage action contributing to a circular economy. There is limited opportunity at a borough level for such measures including nationally approved local transport and Workplace Parking Levies²⁸⁹ but there are also opportunities for voluntary measures which use fiscal drivers. Some boroughs have introduced a climate levy as part of their council tax, and they have the ability to financially incentivise and support, for example, retrofit projects.

Examples from boroughs

Hounslow's draft Climate Emergency Action Plan²⁹⁰ includes the following commitment: 'The council will look at options for financing the Climate Plan such as Voluntary local council tax supplement for higher tax rate payers for climate emergency actions' and 'Use of regulatory charges, such as those relating to parking for example, to incentivise low carbon choices'.

Legislation and regulation

Current London-wide policy

Boroughs have limited powers to set their own legislation and regulations but can work with other boroughs and key stakeholders to identify and support legislation and regulations that boroughs need that will enable them to transition to a circular economy at a London wide and national level.

Examples from boroughs

The London Borough of Sutton in their Environment Strategy and Climate Emergency Response Plan²⁹¹ state that they will: 'Work with London Councils, the GLA and other London boroughs to develop the case for legislative and regulatory change, investment and leadership needed at national level to respond to the climate emergency.'

5. Appendix A

5.1. International and national policy summary

Global policy

On a global level, the Sustainable Development Goals (SDGs)²⁹² encompass many of the principles of circular economy. SDG 12: Responsible Consumption and Production aligns most closely, and aims to ensure sustainable consumption and production patterns, encouraging measures around waste reduction, procurement of recycled materials and responsible purchasing.

European policy

The European Commission adopted a new Circular Economy Action Plan²⁹³ in March 2020. It aims to accelerate the transformational change required by the European Green Deal, Europe's new agenda for sustainable growth.

The Circular Economy Action Plan announces initiatives along the entire life cycle of products, targeting for example their design, promoting circular economy processes, fostering sustainable consumption, and aiming to ensure that the resources used are kept in the EU economy for as long as possible. It includes proposals for legislative amendments to be implemented in nation states, with a key focus on municipal waste and recycling. The action plan also includes a monitoring framework for progress on the circular economy. It is composed of a set of ten key indicators which cover each phase e.g. production, consumption, waste management and secondary raw materials, as well as economic aspects including investments, jobs, and innovation.

National policy

On 30th July 2020, the UK Government published a public statement²⁹⁴ confirming it will transpose the existing EU Circular Economy Package (CEP) into UK law. The statement goes on to say:

'The CEP aligns with the collective ambition of the UK nations to move towards a circular economy and implementation will ensure that the UK government maintains and could exceed environmental standards now we have left the EU.'

It is anticipated that UK law will keep pace with the EU law in relation to circular economy. This will need to be true if UK manufacturers are going to continue to sell their products into the EU.

Circular economy is also starting to shape UK policy as summarised below:

- ♦ [The UK 25 Year Environment Plan, 2018](#): This strategy²⁹⁵ sets out long term plans for protecting the natural environment in the UK, including a chapter on increasing resource efficiency, and reducing pollution and waste. It includes plans to double resource productivity and achieve zero avoidable waste by 2050.

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- ♦ [UK Industrial Strategy, 2017](#): This strategy²⁹⁶ sets out an aim for broader outcomes to be considered at the design stage of major projects and encouraging a cultural change – where consumers look at the whole life value of a product rather than focusing on the up-front cost.
 - ♦ [UK Clean Growth Strategy, 2017](#): This strategy²⁹⁷ sets out a set of policies and proposals that aim to accelerate the pace of ‘clean growth’, i.e. deliver increased economic growth and decreased emissions.
 - ♦ **Resources and Waste Strategy for England, 2018**²⁹⁸: This strategy sets out how we will preserve material resources by minimising waste, promoting resource efficiency, and moving towards a circular economy.

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