London's Low Carbon, Green and Adaptive Markets

Includes Low Carbon Environmental Goods and Services (LCEGS)



Update for Financial Year 2024/25

June 2026

KiMatrix WPI ECONOMICS

Disclaimer

kMatrix

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Study Introduction

This introduction comes ahead of the executive summary to introduce the different datasets which have been used to analyse the five separate market areas within the Low Carbon, Green and Adaptive market, and how they have been used to produce six separate sections of the report, each looking at a standalone area of market.

This report is an interim report of a three-year study commissioned by the Greater London Authority and running from August 2025 to November 2027. It introduces the new market areas including Climate Tech and reports market data from 2022/23 to 2024/25. Two reports will follow, covering 2023/24 to 2025/26 and 2024/25 to 2026/27. This data generation and intelligence gathering exercise can be used to inform, evidence and create the rationale for the development and delivery of related policy and programmes.

Accompanying report-level datasets are available from the GLA for London, the Sub-regional Partnerships and Boroughs, more detailed datasets are available from kMatrix upon request.

The purpose of this study is to provide a body of evidence of economic activity in Greater London within five areas of the economy. This includes the kMatrix data and reporting for the current Low Carbon Environmental Goods and Services (LCEGS) definition for financial years 2023/24 through to 2026/27, continuing the GLA's London Snapshot reporting series and timeline of market progression since 2007 (here). Additionally, the study includes analysis from WPI Economics, extending their London's Green Jobs and Skills study from 2021 (here).

The study extends the original snapshot reporting, includes the LCEGS definition and has developed four new markets (Climate Tech, Circular Economy, Green and Blue Infrastructure and Climate Adaptation). These have been identified and defined through stakeholder engagement.

The result is five different markets, drawn from five overlapping datasets for the core market analysis (section 1-5). There is a sixth dataset produced for analysis and forecasting of employment needs for green policy areas (section 6).

The rationale for overlapping datasets is simple: different people use reports differently, have different data requirements (both in terms of detail and presentation) and have different areas of market relevant to their subject area. By creating five standalone datasets the five identified market areas for analysis are directly available for users.

The five areas of the economy analysed are:

Low Carbon Environmental Goods and Services (LCEGS): long-running dataset with timeseries data back to 2007, updated for continuity of definition.

Climate Tech (CT): expanded, restructured and re-labelled version of LCEGS, with some activities excluded (e.g., hybrid vehicles) and the inclusion of new activities (e.g., decarbonisation of industry and manufacturing; green materials and chemistry; low-carbon shipping and aviation; active transport i.e. bicycles and e-bikes etc.).

Circular Economy (CE): as defined by stakeholders and at simplest definition includes activities intended to keep materials in use for as long as possible and includes design, reuse, rental, repair, remanufacture, redistribute, recovery & recycling and digital infrastructure and information systems.

Green and Blue Infrastructure (G&BI): as defined by stakeholders, it includes the water industry, sustainable urban drainage, green spaces, green roofs/walls, and the facilitation and engagement activities enabling their use.

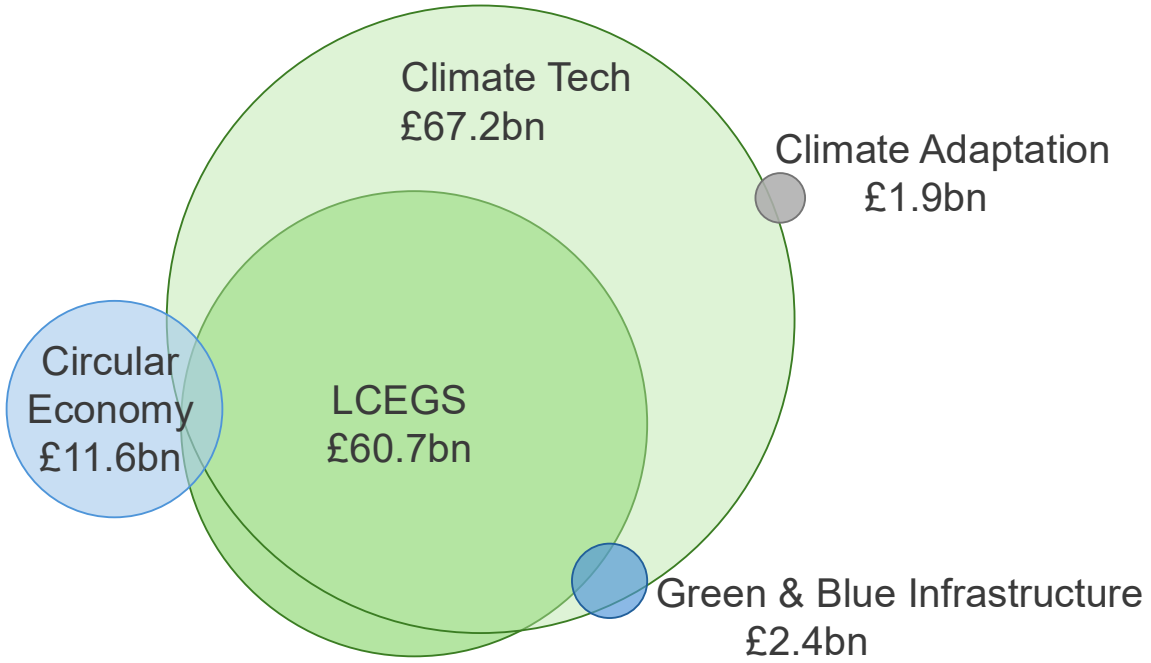
Climate Adaptation (CA): as defined by stakeholders, it only includes those activities which were intended to be adaptive and covers a range of activities within water, information communication and technology, the built environment, energy, transport, professional services, health, agriculture and others.

Ideally, one dataset would service all requirements, however, in practice there are complications which include:

- There is a degree of overlap between all five market areas (e.g., water is present in all five)
- Not everything in Climate Adaptation is 'green' (adaptive measures can include a trade-off between protecting people and nature)
- Not everything in Circular Economy is 'green' (the need is to measure the circularity of materials/products, not necessarily their use. The exception is leasing cars, which is not included)
- Not everything in Green and Blue Infrastructure is 'green' (it includes the use of outside spaces, such as events, social prescribing etc., which although are socially important, are not 'green' in the spirit of the original LCEGS definition)

Figure a. shows a diagram of how the different markets overlap. This diagram is not absolutely to scale, but it does give an impression of the relative sizes of each of the markets. It also illustrates the overlap of market definitions and areas of exclusion, for example, some activities in LCEGS are excluded from Climate Tech.

Figure a: Schematic diagram of the overlap between the Low Carbon, Green and Adaptive markets, values are 2024/25 sales



Climate Tech is the largest market and contains most of LCEGS and some activities in Circular Economy, Green and Blue Infrastructure and Climate Adaptation. Some of the LCEGS dataset has been used to produce the Circular Economy and Green and Blue Infrastructure. The Circular Economy dataset is predominantly standalone, with some activities from Climate Tech and LCEGS. Green and Blue Infrastructure is a mixture of activities from Climate Tech, LCEGS and some standalone activities. Climate Adaptation is predominantly standalone, with some activities from Climate Tech.

Figure b. shows in more detail how the markets interact.

Figure b: Schematic diagram of the relationship between the Low Carbon, Green and Adaptive markets, values are 2024/25 sales

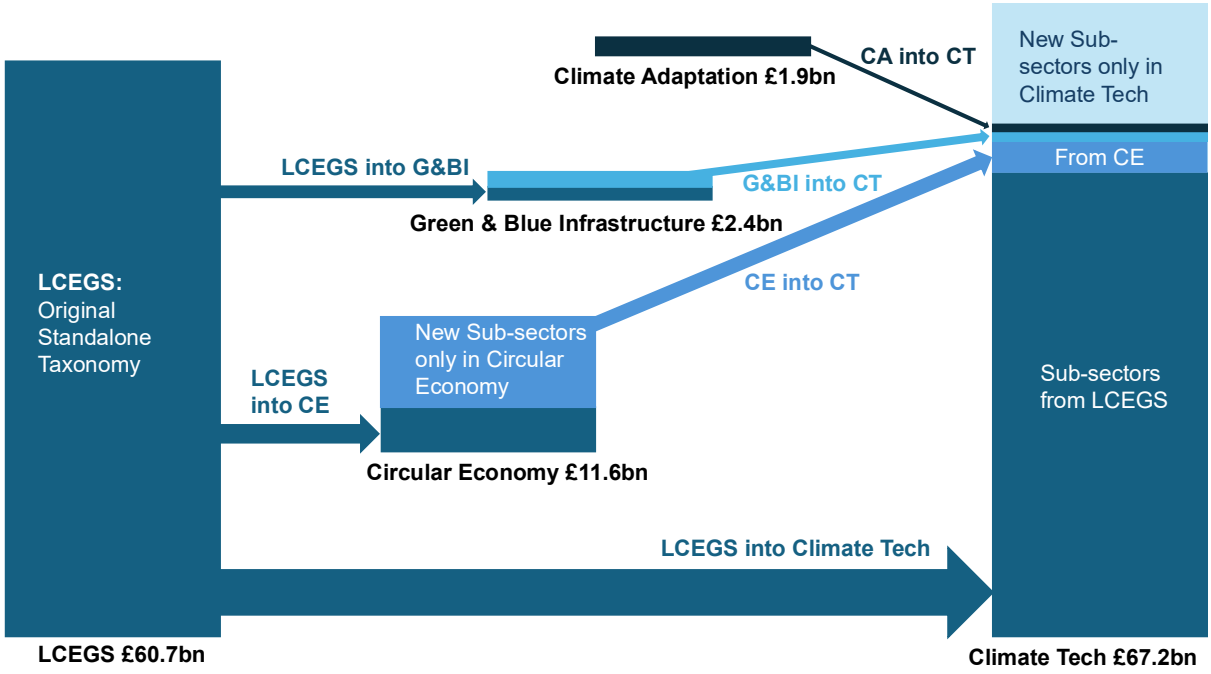


Figure b. shows the same relationships as figure a., the 'blocks' are not to scale but they illustrate how the datasets have been produced:

- All five datasets have some activity unique to them
- Some LCEGS activities feed into Climate Tech, Circular Economy and Green and Blue Infrastructure.
- Some Circular Economy activities feed into Climate Tech
- Some Green and Blue Infrastructure activities feed into Climate Tech
- Some Climate Adaptation activities feed into Climate Tech

Climate Tech is intended to take the place of LCEGS as the standard dataset for the Green Economy in London.

Throughout the report, sub-sectors which are within more than one dataset have been labelled:

- sub-sectors labelled " are within both Climate Tech and the Circular Economy
- sub-sectors labelled ' are in both Climate Tech and Green & Blue Infrastructure

- sub-sectors labelled ^ are in both Climate Tech and Climate Adaptation
- sub-sectors labelled * are in both Climate Tech and LCEGS.

sub-sectors which have the same sub-sector heading as LCEGS but do not have an * mark, have been altered from the LCEGS definition, or have been split between new Level 2 sub-sector definitions.

Appendix 1 includes definitions for each market area.

Note:

An important aspect of the new market definitions is that they cannot be combined into a single sector value, as overlaps between markets would result in double-counting. They must therefore be treated as separate measurements.

Further to this, section six analyses the employment data using a different structure to the other datasets, in order to align with a set of policy areas needed to deliver net zero and environmental goals. WPI Economics identified these as part of previous research for the sub regional partnerships through a process of stakeholder engagement and evidence review. This methodology leverages the flexibility of the five datasets to refine employment numbers and enable activities relevant to identified policies to be included, and those outside of policy-scope to be excluded. These are described in detail in sections 6 and are:

- Circular Economy
- Climate Adaptation
- Climate Change Research and Development
- Climate Change Strategy, Policy, Monitoring and Planning
- Urban Green Infrastructure
- Green Finance
- Homes and Buildings
- Industrial Decarbonisation, Hydrogen and Carbon Capture
- Low Carbon Transport
- Power
- Reducing Localised Pollution

As such, there are six executive summaries, and six sections of the report, one for each market and the green policy areas.

Appendix 2 provides details of both the kMatrix and WPI methodologies used within this study.

Headline Findings

This study has a different structure to previous Low Carbon Snapshot Reports, due to the additional remit to define and report on the market areas of:

- Original LCEGS definition
- Climate Tech (extended LCEGS)
- Circular Economy
- Green and Blue Infrastructure
- Adaptation Economy

Although all of these new market categories include new activities which are very different to the original Low Carbon Snapshot reporting (e.g., Green and Blue Infrastructure includes leisure activities and usage facilitation; and Circular Economy includes repair of equipment regardless of equipment use), they also include some overlapping areas of activity (e.g., recycling is present in the original LCEGS definition, it is also present in Climate Tech and Circular Economy; water is present in all markets).

To eliminate the potential for double counting and distinguish between each market, each has its own discrete dataset, section of the main report, and executive summary. Climate Tech is designed to be London's updated definition for the Green Economy, so these headline findings focus on that definition, with only a brief comparison with LCEGS. Further detail for LCEGS, Circular Economy, Green & Blue Infrastructure and Climate Adaptation are available in executive summaries and the main body of the report.

This headline findings section provides a comparison of the LCEGS dataset and the Climate Tech dataset, followed by over-arching, high-level values for the Green Economy, using the Climate Tech definition and dataset for the key metrics of sales, companies, employment and exports (this market is the most aligned with the original LCEGS definition and incorporates activities from the other three markets of Climate Adaptation, Green and Blue Infrastructure and Circular Economy). This headline findings section also uses the LCEGS definition and dataset for employment projections (to align with previous WPI modelling and reporting).

London's Climate Tech sector is service-led, with an estimated 93% of sales, 94% of companies and 91% of employees in Climate Tech engaged in services. The remaining 7% of sales, 6% of companies and 9% of employees are engaged in manufacturing of green economy goods and equipment and fuel production.

London's LCEGS Sector and Climate Tech Sector Compared

The LCEGS dataset uses the same definition as previous Low Carbon Snapshot reports and is included in this report to continue the timeseries of data which began in 2007/08.

Climate Tech has been developed to become the updated primary definition for the Green Economy in London.

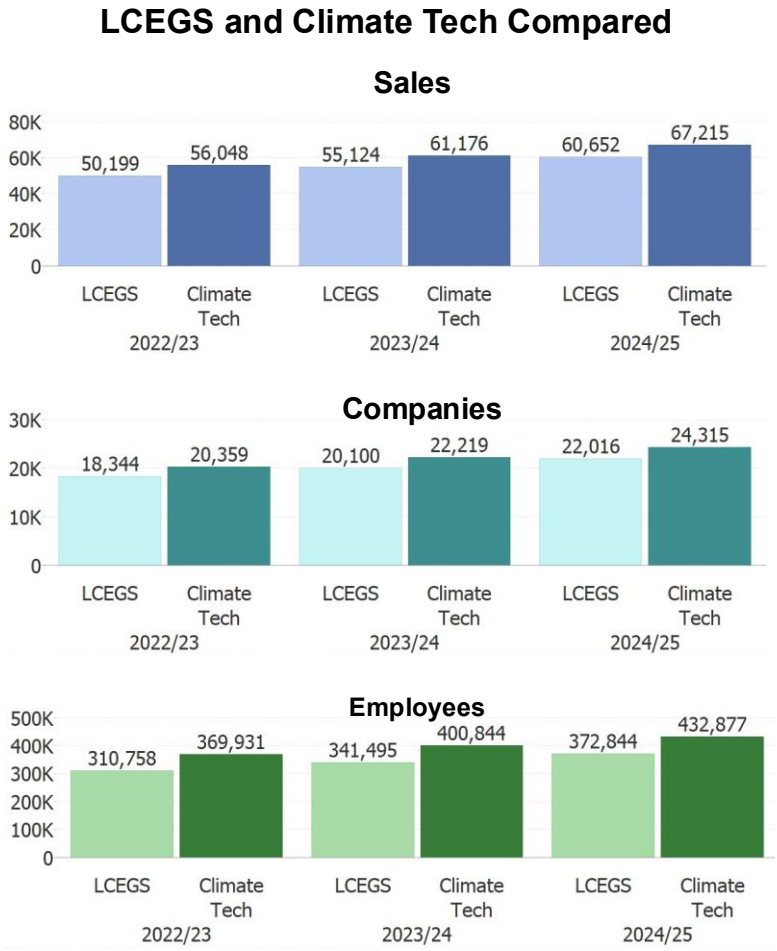


Figure c London's LCEGS and Climate Tech Sales, Companies and Employees Compared between 2022/23 and 2024/25

Climate Tech is based on LCEGS and includes most of the 2,769 LCEGS activities, however some outdated activities have been excluded, such as Hybrid vehicles. Other activities such as Decarbonisation of Industry have been included in Climate Tech which were not present in LCEGS. Climate Tech also includes selected activities from Circular Economy, Green & Blue Infrastructure and Climate Adaptation. These differences result in a larger market for sales, companies and employees for all reported years.

Figure c shows the uplift in total sales, companies and employees for 2022/23, 2023/24 and 2024/25. The 2024/25 values this infographic which show:

- London's LCEGS sector was worth £60.6bn in sales in 2024/25, while London's Climate Tech sector was worth £67.2bn in sales in 2024/25, representing a 10.8% uplift in sales from LCEGS to Climate Tech.
- The number of companies in London's LCEGS sector in 2024/25 were 22,016, while the number of companies in London's Climate Tech sector in 2024/25 was 24,315, representing a 10.4% uplift from LCEGS to Climate Tech.
- Employment in London's LCEGS sector in 2024/25 was 372,844, while employment in London's Climate Tech sector in 2024/25 was 432,877, representing a 16.1% uplift from LCEGS to Climate Tech.

London’s Climate Tech Headline Figures

The headline figures for Climate Tech in London are:

- The Climate Tech sector in London was worth £52.8bn in 2019/20, it contracted to £47.2bn in 2020/21 due to the Covid-19 pandemic, it grew year-on-year and was worth £67.2bn in 2024/25 and is forecast to grow to £131.1bn over the next 5 years (sales forecasts in study are presented in constant prices and exclude the effects of inflation. To project total revenue, anticipated inflation rates should be applied on top of these figures)
- The Climate Tech sector in London included 8,940 companies in 2019/20, this number fell to 18,173 in 2020/21, they have since grown year on year with 24,315 companies in 2024/25
- The Climate Tech sector employed 359,367 employees in 2019/20, this number fell to 318,412 in 2020/21, they have since grown year on year to 432,877 employees in 2024/25
- The Climate Tech sector accounts for 9.9% of GDP, 4.6% of companies and 8.6% of economically active people in London
- London’s Climate Tech sales generate 21.2% of the Climate Tech Sales in the UK, slightly lower than London’s 23.0% of total GDP contribution to the UK economy
- London’s Climate Tech sector accounted for 19.8% of the Climate Tech companies in the UK, slightly lower than the 20.1% of total company contribution to the UK company base
- London’s Climate Tech employment accounted for 20.5% of the UK’s Climate Tech employment, higher than its 14.4% of total contribution to the economically active people in the UK
- London’s Climate Tech sector exports have increased from £3.6bn in 2022/23 to £4.3bn in 2024/25

London’s employment growth potential to 2035 and 2050:

- The LCEGS sector in London employed approximately 354,000 people in 2024/25 across the following policy areas: "Climate Change Research and Development", "Climate Change Strategy, Policy, Monitoring and Planning", "Green Finance", "Power", "Low Carbon Transport", "Industrial Decarbonisation, Hydrogen and Carbon Capture", "Reducing Localised Pollution" and "Homes and Buildings"

- The LCEGS sector in London is forecast to employ approximately 625,900 people by 2035 under a central scenario, 494,000 under a low scenario (with slow growth) and 838,000 under a high scenario (with strong growth).
- The LCEGS sector in London is forecast to employ approximately 1,068,000 people by 2050 under a central scenario, 717,000 under a low scenario (with slow growth) and 1,632,000 under a high scenario (with strong growth).

Employment forecasts for policy areas are provided in Executive Summary 6 and section 6 of the report.

London's Climate Tech Year-on-Year Historical and Forecast Sales Growth

Figure d London's and UK's Climate Tech Year-on-Year Sales Growth 2019/20-2021/22 to 2023/24-2024/25 and Forecast Sales Growth 2024/25-2025/26 to 2028/29-2029/30

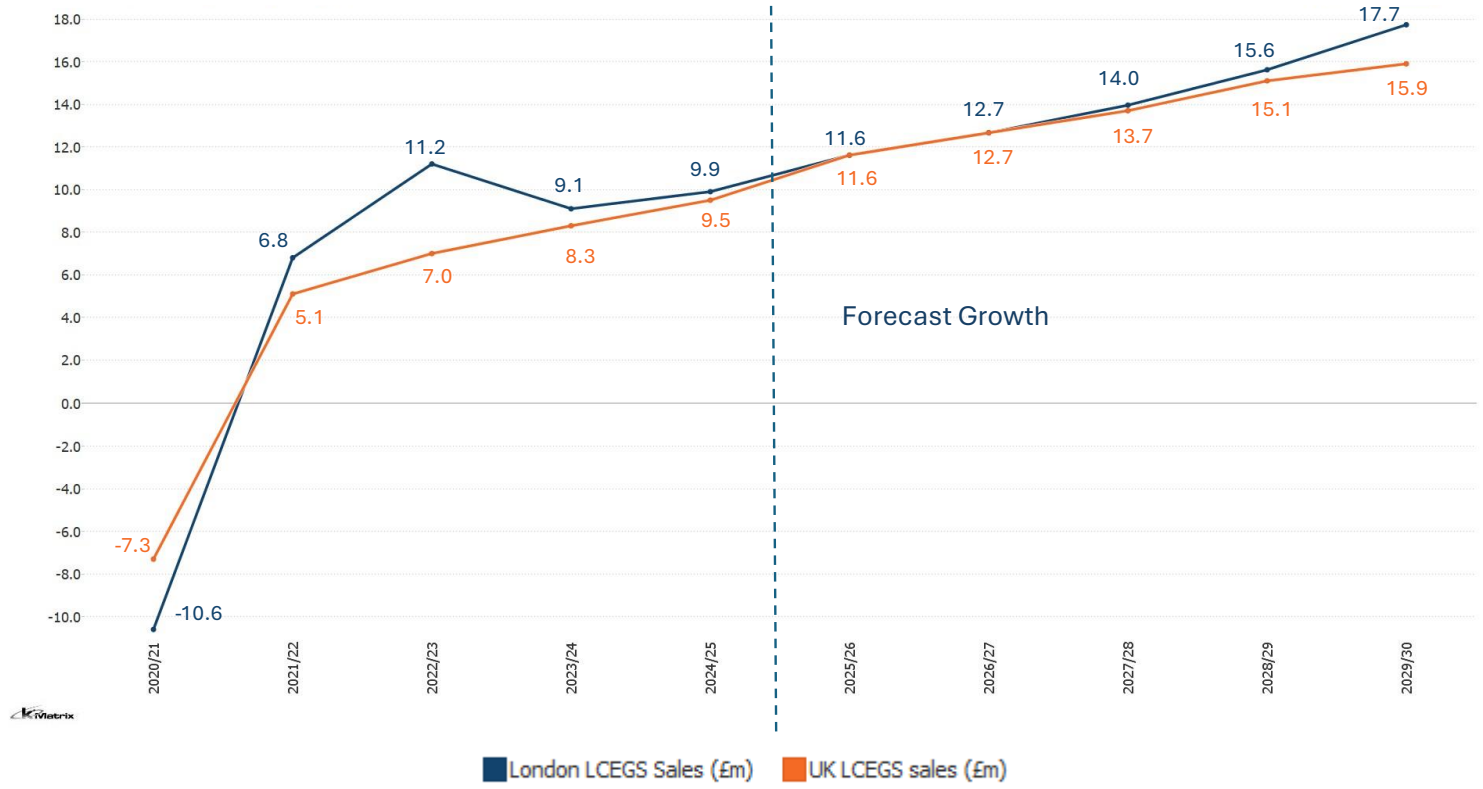


Figure d shows the timeline for year-on-year sales growth for the UK and London Sales for Climate Tech from 2020/21 to 2023/24-2024/25, combined with forecast growth to 2028/29-2029/30. London had a larger contraction in 2020/21 than the UK average due to the pandemic. London is expected to be similar to the UK for 2025/26 and 2026/27, but to have stronger growth than the UK average from 2026/27 to 2029/30.

London's Climate Tech Sub-sector Strengths

London's Climate Tech sector is split into fifty-nine Level 3 sub-sectors and in 2024/25, the seven largest sub-sectors by sales accounted for 77% of the London total sales (74% in 2022/23) and are:

1. **Carbon Finance*** was worth £24.3bn in sales, from 7,972 companies (1.5% of London's company base) employing 110,868 people (2.2% of economically active people in London) in 20245/25, with a 3-year sales growth forecast of 27.2% and forecast sales of £46.6bn in 2029/30
2. **Wind*** was worth £6.5bn in sales, from 2,264 companies employing 38,263 people in 20245/25, with a 3-year sales growth forecast of 23.1% and forecast sales of £12.3bn in 2029/30
3. **Geothermal** was worth £5.0bn in sales, from 2,242 companies employing 28,140 people in 20245/25, with a 3-year sales growth forecast of 17.4% and forecast sales of £19.1bn in 2029/30
4. **Building Technologies*** was worth £4.5bn in sales, from 1,862 companies employing 31,365 people in 20245/25, with a 3-year sales growth forecast of 19.1% and forecast sales of £7.7bn in 2029/30
5. **Alternative Fuel Vehicle** was worth £3.9bn in sales, from 1,345 companies employing 18,103 people in 20245/25, with a 3-year sales growth forecast of 23.3% and forecast sales of £7.6bn in 2029/30
6. **Alternative Fuels** was worth £3.9bn in sales, from 1,576 companies employing 35,935 people in 20245/25, with a 3-year sales growth forecast of 17.4% and forecast sales of £6.2bn in 2029/30
7. **Solar** was worth £3.4bn in sales, from 992 companies employing 23,193 people in 20245/25, with a 3-year sales growth forecast of 20.5% and forecast sales of £6.0bn in 2029/30

Note: Sub-sectors market with * are also present in the LCEGS dataset and reporting.

More detail on these sub-sectors are within Executive Summary 1: Climate Tech and report section 1.

Policy area analysis

According to our projection, there are five policy areas which provide the overwhelming majority of green jobs in London by 2050:

- **Green finance**, where 401,400 jobs are projected under the central scenario
- **Circular economy**, where 344,400 jobs are projected under the central scenario
- **Power**, where 268,300 jobs are projected under the central scenario
- **Homes and Buildings**, where 173,600 jobs are projected under the central scenario
- **Low Carbon Transport**, where 171,200 jobs are projected under the central scenario

Stakeholder Evidence: Headline Findings

Stakeholder interviews validate the quantitative evidence that London's green economy is predominately service-led. The value of London's Climate Tech economy is not only in firms that manufacture low-carbon goods, but in the system that designs and commissions, finances and insures as well as tests and scales green activity. Stakeholders highlighted green finance (including insurance and supporting professional services), clean tech start-ups (supported by a strong research culture in world-leading universities), circular economy models and the decarbonisation of homes and commercial buildings as mutually reinforcing parts of this ecosystem:

- **Climate tech.** Stakeholders identified London as a world-leading climate tech ecosystem. Its strength is underpinned by the availability of capital and leading universities and research institutions that act as a strong knowledge-transfer routes, a supportive policy and cultural environment, and the presence of customers, investors, government and professional advisers in one city. Stakeholders emphasised that London often acts as the place where green ideas are developed, financed and tested before manufacturing or larger-scale deployment takes place elsewhere in the UK or overseas.
- **Green finance.** Green finance was the most consistently recognised area of global specialism. London's banks, asset managers, pension funds, insurance market and advisory services support decarbonisation well beyond the capital. The City of London's role is therefore both a direct employment strength and an enabling function for the wider green economy.

Stakeholders also emphasised the insurance market's role in managing risks associated with complex infrastructure and emerging climate technologies, including construction risk, operational risk, technology risk and investor confidence.

- **Circular economy.** Stakeholders described the circular economy as an emerging but comparatively mature London strength, underpinned by an ambitious policy framework, ReLondon's circular economy innovation cluster, strong municipal experience and growing supply-chain mapping. The biggest opportunities identified were circular construction, food redistribution and packaging reuse.
- **Homes and buildings.** Decarbonising London's homes and building stock was described differently from the other key sectors: its scale is driven by the necessity of decarbonising property within London, rather than by a supply-side specialism alone. Stakeholders consistently described retrofit as simultaneously one of the largest opportunities but also where the most acute skills gap and delivery challenges are present. For example, gaps exist in a range of roles across heat pumps, heat network, EV infrastructure and glazing / insulation. London's heritage and commercial building stock create a distinctive specialism but also increases the delivery complexity.

More widely, stakeholders framed London as having a key inter-regional role in: financing the green transition nationally; functioning as a testbed for new ideas; and providing a large demand-side market for green products and services. London can provide demand, finance and testing, while other UK regions provide land, manufacturing capability, specialist skills and supply-chain depth. Green finance, insurance and professional services based in London support projects across the UK; climate tech and circular economy models may be developed and de-risked in London before manufacturing or scaling elsewhere; and London's demand for housing retrofit, low carbon transport, heat networks and circular construction can create predictable demand for suppliers beyond the capital. Key examples that emerged included:

- **TfL's low-carbon transport procurement supporting UK-wide manufacturing**: London's transition to a zero-emission bus fleet has supported manufacturing, skilled employement and supply-chain activity elsewhere in the UK through a large and predictable market demand. For example, Wrightbus has supplied zero-emission buses for Stagecoach London, with vehicles manufactured in Ballymena, Northern Ireland. Alexander Dennis – with production facilities in Falkirk and Scarborough – has also supplied electric buses for London operators, including through large-scale orders for TfL-contracted services. This illustrates London's role as a demand-side driver: its public transport decarbonisation creates a route to

market for green manufacturing capacity across the UK, while also helping London meet its air quality and net zero objectives.

- **London headquarters supported by wider UK manufacturing is common**: stakeholders identified a common model in which London provides headquarters, finance, customer access and commercialisation functions, while manufacturing and Research and Development (R&D) activity takes place elsewhere in the UK. One example given was that of a zinc battery company that wanted to locate manufacturing and R&D in London but could not find a suitable site at the right price. The company retained a London headquarters, benefiting from the capital's investor and customer ecosystem, while locating manufacturing and R&D in Hampshire. In this model, London's attractiveness as a site of investors and customer base helps generate follow-on investment and employment in other parts of the UK.
- **London's circular economy expertise shared through the UK Circular Cities Network**: through ReLondon, London's circular economy activity has a platform for testing new approaches in London and sharing learning with other regions. Through the UK Circular Cities Network, London is linked to around 30 local and regional authorities, enabling officers to share practical lessons on circular economy policy, business support and local programme design. Cities such as Brighton, Manchester and Glasgow have developed circular economy programmes, with adoption informed by London's experience.
- **London's insurance market supporting UK-wide green infrastructure and climate technologies**: made up of 50,000 specialists overseeing £121bn of annual market income, London's insurance market already has the financial capacity and technical expertise to support complex green infrastructure and emerging climate technologies by helping projects manage risk across their lifecycle. This includes protecting intellectual property, helping unlock finance, covering construction and operational risks, and giving investors greater confidence that sustainable projects can be delivered successfully. This matters because many green projects face risks that can otherwise hold back investment, including unproven technologies, high upfront costs, long payback periods and political uncertainty. London's insurance market can help manage these risks through products such as credit risk insurance, political risk cover and equity contribution guarantees. As green infrastructure and climate technology projects are delivered across the UK, the scale of green insurance products provided by London-based insurers is expected to grow.

The interviews did caveat that maintaining strong future growth of these areas is subject to overcoming a series of challenges. In particular, retrofit, clean energy infrastructure and circular economy models were repeatedly identified as major opportunities, but

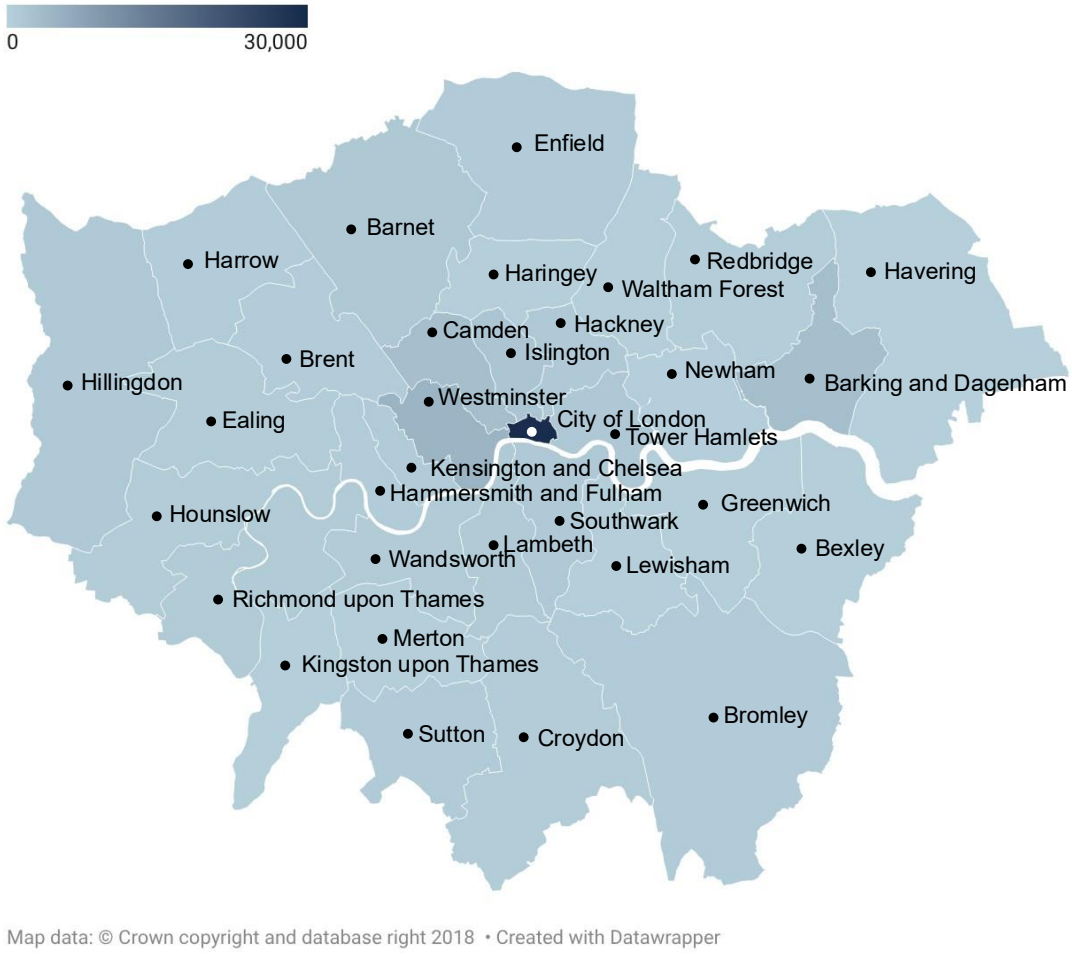
delivery was identified as being constrained by both market and policy uncertainty, grid and planning barriers, inconsistent training-to-employment pathways and accreditation and limited access to finance for smaller firms.

Realising the growth potential of London's green economy was deemed dependent upon delivery within four key cross-cutting areas of business needs:

- **Investment support.** Greater public and private finance is needed to enable firms to invest in sustainability activities. This should be supported by clear guidance on how businesses can make sustainable investments effectively and in line with wider net zero objectives.
- **Policy certainty.** More stable and consistent policy frameworks are needed to give businesses the confidence to plan and invest over the long term. Stakeholders highlighted frequent policy changes, particularly from central government, as a major source of uncertainty and a barrier to green business growth.
- **Skills and training alignment.** There is strong demand for modular and responsive training provision that can adapt quickly to changes in "green skills". Stakeholders also emphasised the need for better alignment between training providers and employer requirements, supported through mechanisms such as the London Local Skills Improvement Plan (LSIP) and Inclusive Talent Strategy (ITS).
- **Streamlined procurement.** Funding application and reporting processes should be simplified and joined-up, particularly for GLA bids and Section 106 funding, to reduce the administrative burden on businesses. This would help encourage greater engagement from firms, especially SMEs that often lack the time and capacity to navigate complex processes.

London's Sub-regional Partnerships and Local Authorities

Map 1: London's Climate Tech Sales 2024/25 by Local Authority

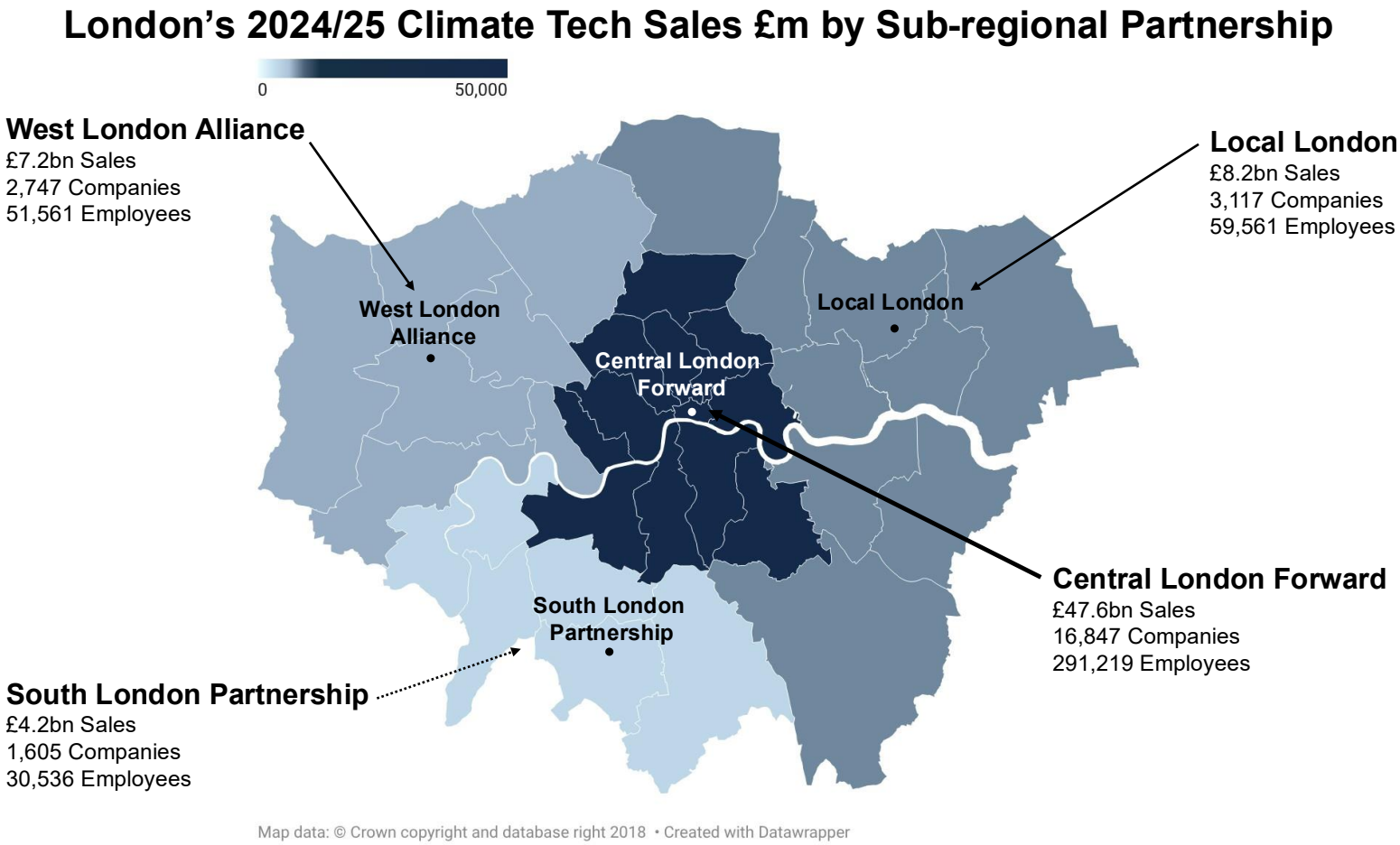


Map 1 shows the local authorities of London shaded by the value of Climate Tech sales for 2024/25.

The City of London dominates the market and accounted for 43% of sales, 39% of companies and 34% of employees in 2024/25.

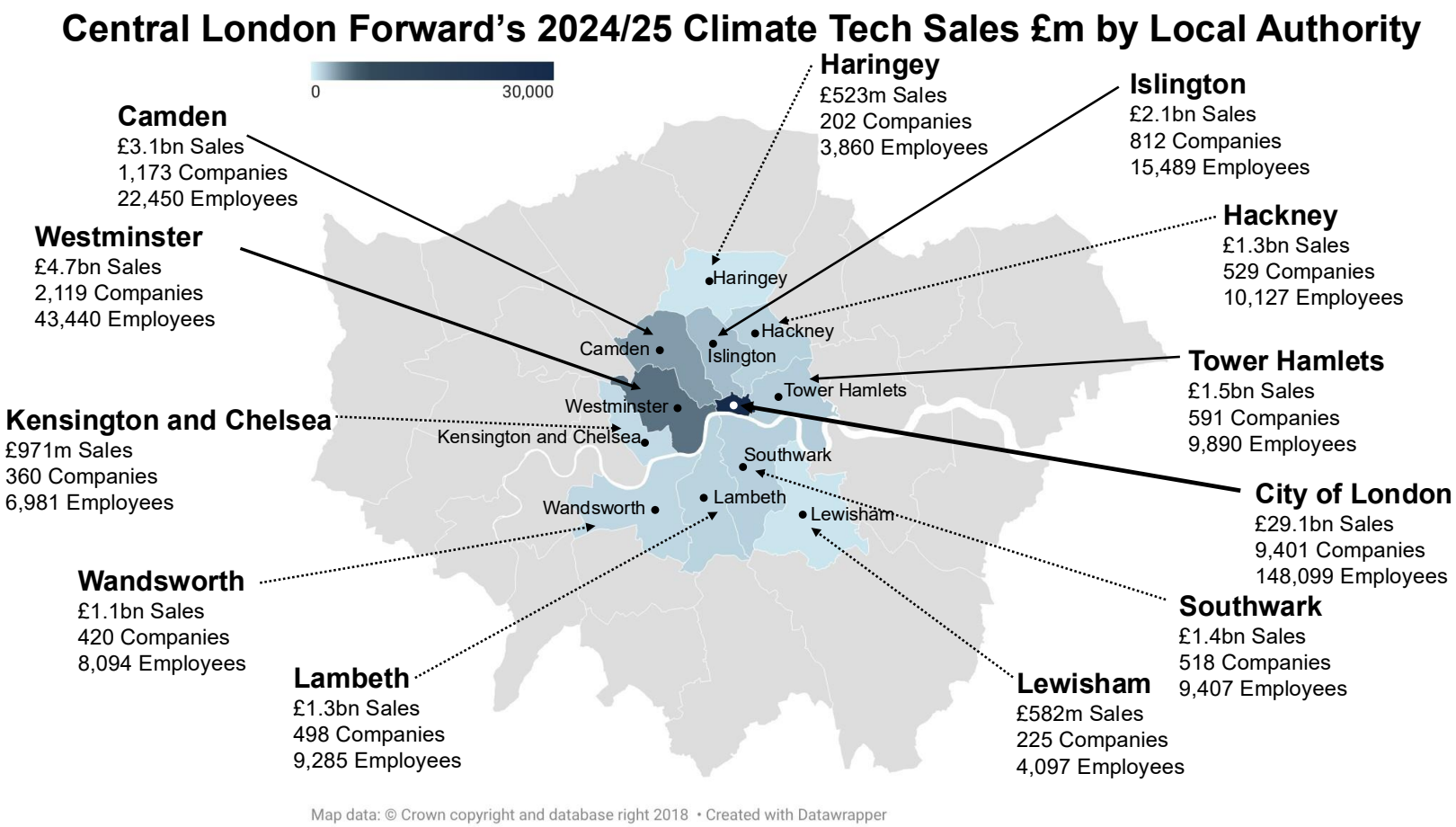
Westminster is the second largest local authority, and accounted for 7% of sales, 9% of companies and 10% of employees in 2024/25.

Map 2: London's Sub-regional Partnerships Climate Tech Sales 2024/25 by Local Authority



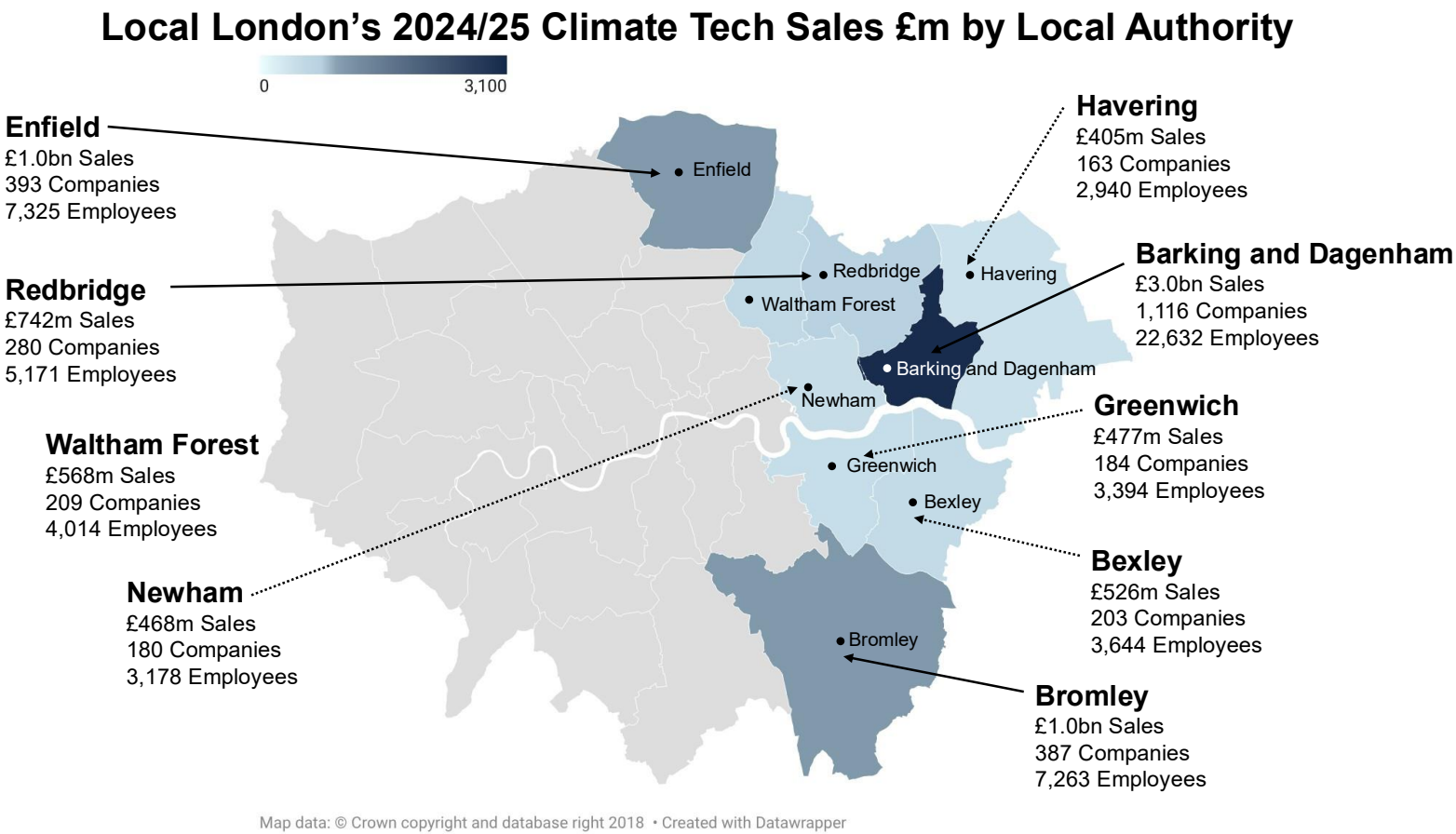
Map 2 shows London's Sub-regional Partnerships (SRP) shaded by the value of Climate Tech sales for 2024/25. Central London Forward is the largest SRP, with £47.6bn in sales from over 16,800 companies and employing over 290,000 people. This is followed by Local London, with £8.2bn in sales from over 3,100 companies and employing over 59,500 people; West London Alliance with £7.2bn in sales from over 2,700 companies and employing over 51,500 people; and South London Partnership with £4.2bn in sales from over 1,600 companies and employing over 30,500 people.

Map 3: Central London Forward's Climate Tech Sales 2024/25 by Local Authority



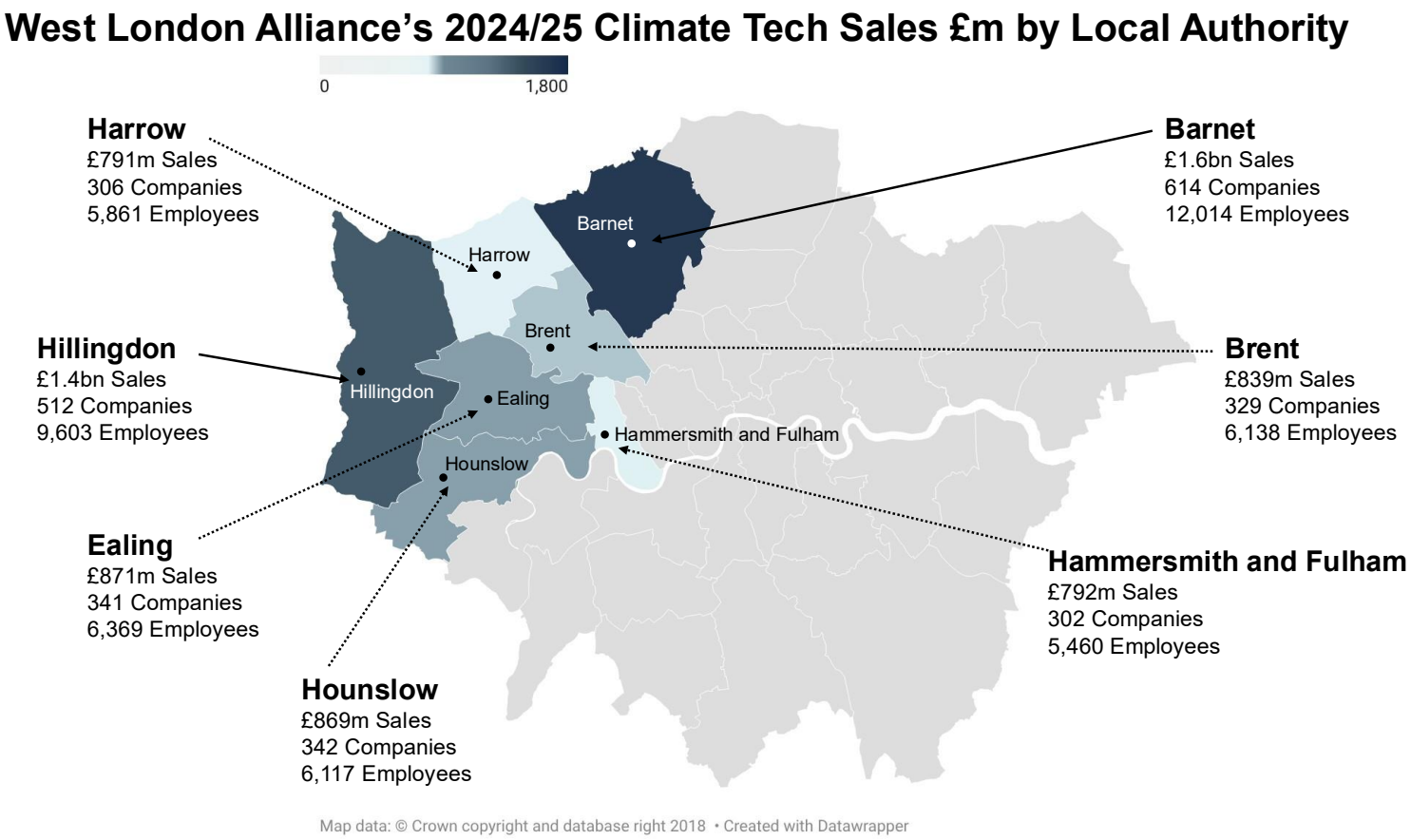
Map 3 shows Central London Forward's Local Authorities (LA) shaded by the value of Climate Tech sales for 2024/25, the dotted arrows indicate smaller markets. The City of London is the largest LA, with £29.1bn in sales from over 9,400 companies and employing over 148,000 people. This is followed by Westminster, with £4.7bn in sales from over 2,100 companies and employing over 43,400 people; Camden with £3.1bn in sales from over 1,100 companies and employing over 22,400 people; and Islington with £2.1bn in sales from over 800 companies and employing over 15,400 people.

Map 4: Local London's Climate Tech Sales 2024/25 by Local Authority



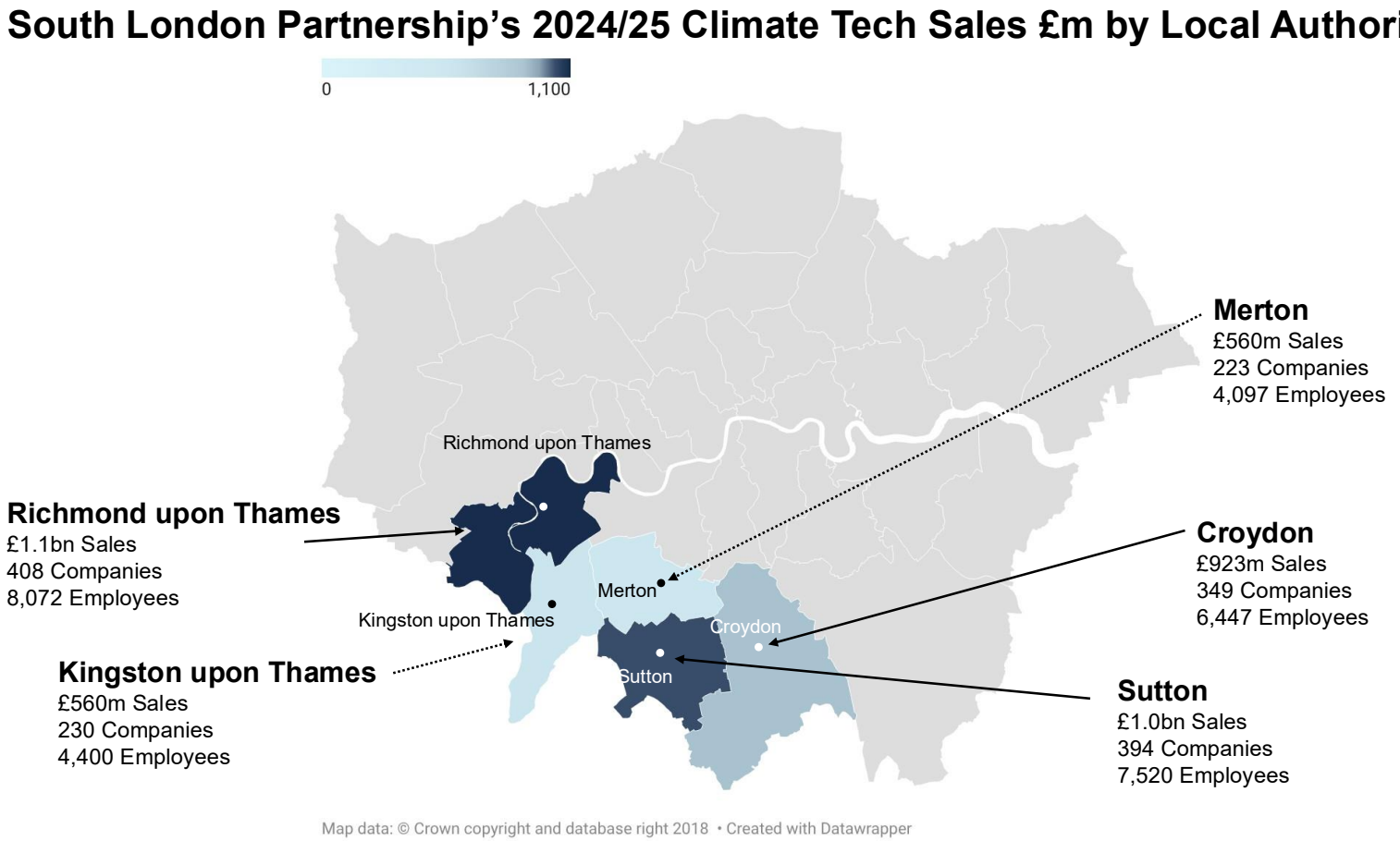
Map 4 shows Local London's Local Authorities (LA) shaded by the value of Climate Tech sales for 2024/25, the dotted arrows indicate smaller markets. Barking and Dagenham is the largest LA, with £3.0bn in sales from over 1,100 companies and employing over 22,600 people. This is followed by Bromley, with £1.0bn in sales from over 380 companies and employing over 7,200 people; Enfield with £1.0bn in sales from over 390 companies and employing over 7,300 people; and Redbridge with £742m in sales from 280 companies and employing over 5,100 people.

Map 5: West London Alliance's Climate Tech Sales 2024/25 by Local Authority



Map 5 shows West London Alliances' Local Authorities (LA) shaded by the value of Climate Tech sales for 2024/25, the dotted arrows indicate smaller markets. Barnet is the largest LA, with £1.6bn in sales from over 600 companies and employing over 12,000 people. This is followed by Hillingdon, with £1.4bn in sales from over 500 companies and employing over 9,600 people; Ealing with £871m in sales from over 340 companies and employing over 6,300 people; and Hounslow with £869m in sales from over 340 companies and employing over 6,100 people.

Map 6: South London Partnership's Climate Tech Sales 2024/25 by Local Authority



Map 6 shows South London Partnership's Local Authorities (LA) shaded by the value of Climate Tech sales for 2024/25, the dotted arrows indicate smaller markets. Richmond upon Thames is the largest LA, with £1.1bn in sales from over 400 companies and employing over 8,000 people. This is followed by Sutton, with £1.0bn in sales from almost 400 companies and employing over 7,500 people; Croydon with £923m in sales from almost 350 companies and employing over 6,400 people; and Kingston upon Thames with £560m in sales from 230 companies and employing 4,400 people.

The sub-regional maps are consistent with stakeholder descriptions of local variation and strengths in the green economy:

- Central London was associated with green finance and wider professional services and policy functions as well as a distinctive location for heritage retrofit, large commercial property decarbonisation and major infrastructure commission;
- East London and parts of West London were associated with infrastructure opportunities in power and the circular economy;
- South London was a strong base for domestic retrofit activities because of its residential character and older housing stock.

However, stakeholders also emphasised that London’s green economy depends on inter-London trade, benefiting central London's dense finance and client base and cross-London local authority procurement, supply chain development and production capacity.

Executive Summary 1: Climate Tech

London's Climate Tech sector was worth £67.2bn to London's economy in 2024/25. These sales were generated by over 24,300 businesses that employed over 432,800 people in the sector in 2024/25. Further details in report section 1.

London's Climate Tech Key Metrics

Sales

The Climate Tech sector in London was worth £52.8bn in 2019/20, it then contracted to £47.2bn in 2020/21 and has since grown year on year and was worth £67.2bn in 2024/25.

Companies

The number of companies in London's Climate Tech sector in 2019/20 was 18,940 and fell to 18,173 in 2020/21, they have since grown year on year with 24,315 companies in 2024/25.

Employment

Employment in London's Climate Tech sector in 2019/20 was 359,367, and fell to 318,412 in 2020/21, they have since grown year on year with 432,877 employees in 2024/25.

Growth

Historically, London's Climate Tech sector generally had a higher growth for sales, companies and employees compared to the UK. The Covid-19 pandemic impacted the market between 2019/20 and 2020/21, followed by a strong labour market rebound to 2022/23, and a slowing labour market for the following two years:

Timeframe	London Sales growth	UK Sales growth	London Company growth	UK Company growth	London Employment growth	UK Employment growth
2019/20 to 2020/21	-10.6%	-7.3%	-4.0%	-13.9%	-11.4%	-12.9%
2020/21 to 2021/22	6.8%	5.1%	7.4%	4.6%	5.8%	5.2%
2021/22 to 2022/23	11.2%	7.0%	4.3%	9.4%	9.9%	9.3%
2022/23 to 2023/24	9.1%	8.3%	9.1%	8.0%	8.3%	6.9%

2023/24 to 2024/25	9.9%	9.5%	9.4%	9.1%	8.0%	7.9%

Note: cells shaded blue indicated stronger growth than the UK.

Exports

The value of exports in London's Climate Tech sector in 2022/23 was £3.6bn and was £4.3bn in 2024/25. This accounted for 22% of the UK's Climate Tech exports in 2024/25, slightly higher than London's 21% share of the overall UK Climate Tech market.

London's export market grew 10.3% between 2022/23 and 2023/24 and 10.3% between 2023/24 and 2024/25. This growth was stronger than the UK which grew 10.0% between 2022/23 and 2023/24; and 7.2% between 2023/24 and 2024/25.

London's sub-sectors

London's Climate Tech sector is split into fifteen Level 2 sub-sectors and in 2024/25, three accounted for 78% of sales, 78% of Companies and 70% of Employees. These three are made up of Climate Data, Analytics & Fintech 36% of sales (34% in 2022/23), Renewable Energy 28% (28% in 2022/23) and Low Carbon 14% (15% in 2022/23).

London's sub-sector strengths

London's Climate Tech sector is split into fifty-nine Level 3 sub-sectors and in 2024/25, the seven largest sub-sectors by sales accounted for 77% of the London total sales (74% in 2022/23) and are shaded blue in the table. The next five largest sub-sectors by sales account for a further 12% of London's total sales in (13% in 2022/23). Together these twelve sub-sectors accounted for 89% of sales (88% in 2023/24). Note: sub-sectors marked with * are also present in LCEGS

Sales Ranking	Level 3 Sub-sector	2024/25 Metrics	3-year Sales Growth (2022/23 to 2024/25) and Forecast Sales (2029/30)	Sub-sector Description
1	**Carbon Finance*** (Climate Data, Analytics & Fintech)	Sales: £24.3bn Companies: 7,972 Employees: 110,868	3-year sales growth: 27.2% Forecast Sales: £46.6bn	This includes Carbon finance trading houses and consultancies
2	**Wind*** (Renewable Energy)	Sales: £6.5bn Companies: 2,264 Employees: 38,263	3-year sales growth: 23.1% Forecast Sales: £12.3bn	This includes control systems development and manufacture, drive train development, manufacture and systems integration and consulting houses

3	**Geothermal** (Renewable Energy)	Sales: £5.0bn Companies: 2,242 Employees: 28,140	3-year sales growth: 17.4% Forecast Sales: £19.1bn	This includes head office functions, systems and design and international consultancy
4	**Building Technologies*** (Low Carbon)	Sales: £4.5bn Companies: 1,862 Employees: 31,365	3-year sales growth: 19.1% Forecast Sales: £7.7bn	This includes head office functions, building systems design and consultancy and building systems providers and installers
5	**Alternative Fuel Vehicle** (Sustainable Mobility & Transport)	Sales: £3.9bn Companies: 1,345 Employees:18,103	3-year sales growth: 23.3% Forecast Sales: £7.6bn	This includes head office functions, prototype applications and vehicle sales
6	**Alternative Fuels** (Low Carbon)	Sales: £3.9bn Companies:1,576 Employees:: 35,935	3-year sales growth: 17.4% Forecast Sales: £6.2bn	This includes R&D functions, alternative fuel providers and process implementation accounting.
7	**Solar** (Renewable Energy)	Sales: £3.4bn Companies: 992 Employees:23,193	3-year sales growth: 20.5% Forecast Sales: £6.0bn	This includes head office functions and providers and installers
8	**Biomass *** (Renewable Energy)	Sales: £2.2bn Companies: 878 Employees: 17,204	3-year sales growth: 15.9% Forecast Sales: £3.4bn	This includes systems development and implementation and R&D
9	**Waste Management *** (Waste & Resource Recovery)	Sales: £1.7bn Companies: 657 Employees: 12,988	3-year sales growth: 8.8% Forecast Sales: £2.2bn	This includes process development and new process implementation and consulting
10	**Water & Waste Water Treatment** (Sustainable Water Technologies)	Sales: £1.6bn Companies: 715 Employees:14,248	3-year sales growth: 5.5% Forecast Sales: £2.0bn	This includes systems implementation, maintenance and development

11	**Recovery and Recycling** (Waste & Resource Recovery)	Sales: £1.6bn Companies: 670 Employees:14,270	3-year sales growth: 9.9% Forecast Sales: £2.3bn	This includes waste collection, glass stock processing and paper feedstock processing
12	**Air Source Heat Pumps** (Renewable Energy)	Sales: £1.1bn Companies: 494 Employees:6,711	3-year sales growth: 21.2% Forecast Sales: £4.0bn	This includes head office functions and providers and installers

London's Impact on Regional Chains and Networks of Supply

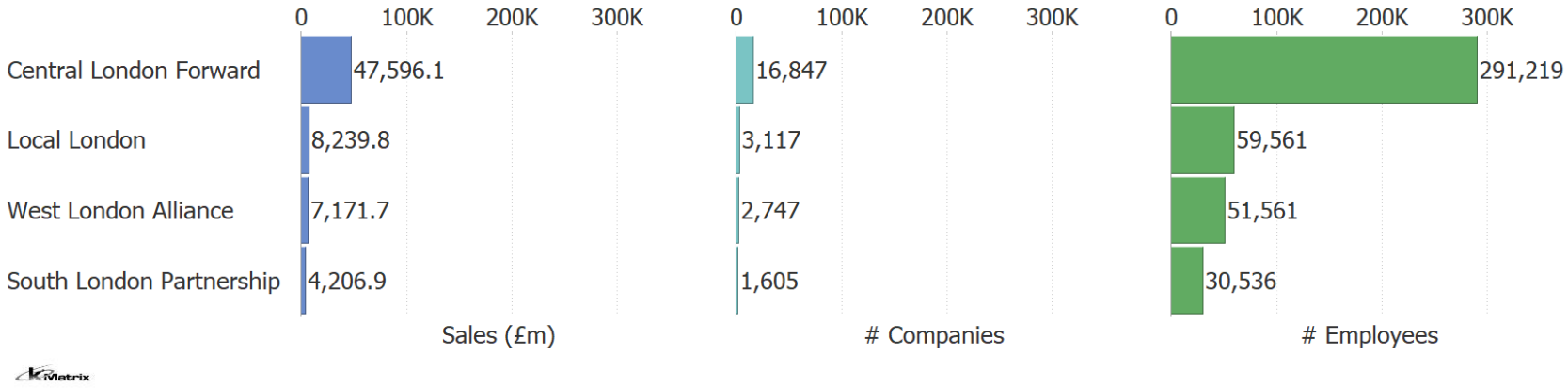
London's Climate Tech market was worth £67.2bn in 2024/25 and generated a further £20.9bn, or an additional 31.0% in terms of sales within the chains and networks of supply across the UK, outside of London.

The greatest beneficiary of London's Climate Tech sector, in terms of sales generated within the chains and networks of supply within a region is the North West, with £3.5bn, representing 5.2% of London's total sales. This is followed by the West Midlands with £2.9bn (4.3%), Wales with £2.2bn (3.3%), Yorkshire & Humber with £2.2bn (3.3%), the North East with £2.1bn (3.1%), and the rest of the South East with £1.8bn (2.6%).

Significant London sub-sectors which generate large sales outside of London include:

- Water and Wastewater Treatment in the North West with £88.4m (5.4%), and the West Midlands with £87.1m (5.3%)
- Alternative Fuel Vehicle in the West Midlands with £229.0m (5.9%); North East with £180.1 (4.6%); East of England with £177.9m (4.6%); and North West with £153.4m (3.9%)
- Alternative Fuels (Low Carbon) in the West Midlands with £210.0m (5.4%), and the North West with £210.0m (5.4%)
- Carbon Finance in the North West with £1.7bn (7.0%), the West Midlands with £1.3bn (5.5%) and Yorkshire & Humber with £1.2bn (4.8%)
- Building Technologies in the North West with £320.8m (7.1%), Wales with £229.6m (5.1%) and the West Midlands with £220.6m (4.9%)
- Solar in Yorkshire & Humber with £153.6m (4.5%), the West Midlands with £132.1m (3.9%), and the North West with £129.7m (3.8%)
- Wind in the North West with £208.9m (3.2%) and the North East with £158.2m (2.4%)

London's Sub-regions



London's largest Climate Tech market from 2019/20 through to 2024/25 was Central London Forward, with sales worth £47.6bn, which were generated by over 16,800 companies employing over 291,000 people in 2024/25. Sales growth was 30% between 2019/20 and 2024/25.

London's second-largest Climate Tech market from 2019/20 through to 2024/25 was Local London, with sales worth £8.2bn, which were generated by over 3,100 companies employing over 59,500 people in 2024/25. Sales growth was 20% between 2019/20 and 2024/25.

London's third-largest Climate Tech market from 2019/20 through to 2024/25 was West London Alliance, with sales worth £7.2bn, which were generated by over 2,700 companies employing over 51,500 people in 2024/25. Sales growth was 22% between 2019/20 and 2024/25.

London's smallest Climate Tech market from 2019/20 through to 2024/25 was South London Partnership, with sales worth £4.2bn, which were generated by over 1,600 companies employing over 30,500 people in 2024/25. Sales growth was 20% between 2019/20 and 2024/25.

Executive Summary 2: Circular Economy

London's Circular Economy was worth £11.6bn to London's economy in 2024/25. These sales were generated by over 2,400 businesses that employed over 229,700 people in the sector in 2024/25. Further details in report section 2.

London's Circular Economy Key Metrics

Sales

The Circular Economy in London was worth £10.9bn in 2019/20, it then contracted to £10.4bn in 2020/21 and has since grown year on year and was worth £11.6bn in 2024/25.

Companies

The number of companies in London's Circular Economy sector in 2019/20 was 2,313 and fell to 2,217 in 2020/21, they have since grown year on year with 2,479 companies in 2024/25.

Employment

Employment in London's Circular Economy in 2019/20 was 225,738, and fell to 216,450 in 2020/21, it has since grown year on year with 229,741 employees in 2024/25.

Growth

Historically, London's Circular Economy had lower sales, but variable company and employment growth compared to the UK. The Covid-19 pandemic impacted the market between 2019/20 and 2020/21, followed by a strong labour market rebound to 2022/23, and a slowing labour market for the following two years:

Timeframe	London Sales growth	UK Sales growth	London Company growth	UK Company growth	London Employment growth	UK Employment growth
2019/20 to 2020/21	-4.4%	-4.4%	-4.2%	-5.3%	-4.1%	-5.4%
2020/21 to 2021/22	5.0%	4.9%	4.4%	3.4%	4.1%	3.2%
2021/22 to 2022/23	1.4%	1.6%	1.2%	1.2%	1.6%	1.3%
2022/23 to 2023/24	2.0%	2.5%	2.5%	3.0%	0.2%	0.4%

2023/24 to 2024/25	3.0%	3.3%	3.2%	4.0%	0.2%	0.4%

Note: cells shaded blue indicated stronger growth than the UK.

Exports

The value of exports in London's Circular Economy in 2022/23 was £219m and were £323m in 2024/25. This accounted for 19% of the UK's Circular Economy exports in 2024/25, slightly lower than London's 21% share of the overall UK Circular Economy.

London's export market grew 2.6% between 2022/23 and 2023/24 and 3.3% between 2023/24 and 2024/25. This growth was weaker than the UK which grew 4.5% between 2022/23 and 2023/24; and 4.6% between 2023/24 and 2024/25.

London's sub-sectors

London's Circular Economy is split into eight Level 2 sub-sectors and in 2024/25, three accounted for 53% of sales, 60% of Companies and 48% of Employees. These three are made up of Repair 19% of sales (19% in 2022/23), Remanufacture 18% (18% in 2022/23) and Recovery & Recycling 16% (15% in 2022/23).

London's sub-sector strengths

London's Circular Economy is split into thirty Level 3 sub-sectors and in 2024/25, the five largest sub-sectors by sales in accounted for 36% of the London total sales (36% in 2022/23) and are shaded blue in the table. The next seven largest sub-sectors by sales account for a further 32% of London's total sales in (32% in 2022/23). Together these twelve sub-sectors accounted for 68% of sales (68% in 2023/24). Note: the symbol " indicates sub-sectors also within Climate Tech.

Sales Ranking	Level 3 Sub-sector	2024/25 Metrics	3-year Sales Growth (2022/23 to 2024/25) and Forecast Sales (2029/30)	Sub-sector Description
1	**Recovery & Recycling Process** (Recovery and Recycling)	Sales: £1.3bn Companies: 513 Employees: 13,486	3-year sales growth: 9.0% Forecast Sales: £1.9bn	This includes recycling of automobiles, construction and demolition debris, electronics, glass, household goods, metals paper, plastics, rubber, technologies wood, water and surplus food, alongside R&D and training.
2	**Remanufacture Engin. & Equip. "** (Remanufacture)	Sales: £769m Companies: 130	3-year sales growth: 4.3% Forecast Sales: £1.3bn	This includes the R&D, manufacture and supply of remanufacturing equipment and engineering services.

		Employees: 16,685		
3	**Rental** (Rental)	Sales: £765m Companies: 188 Employees: 16,626	3-year sales growth: 4.2% Forecast Sales: £1.2bn	This includes all core activities and alongside consultancy, software and training for renting goods. It includes the renting of cars.
4	**Independent Remanufacturers (IRs) "** (Remanufacture)	Sales: £699m Companies: 117 Employees: 15,118	3-year sales growth: 4.2% Forecast Sales: £1.1bn	This includes the core activity by independent remanufacturers alongside consultancy and ancillary services for remanufacture of clothing and shoes, construction materials, electronic and electrical equipment, furniture, household textiles, machinery and equipment, non-electrical games, toys and sporting goods, packaging, vehicles and other goods.
5	**Original Equipment Manufacturers/Remanufacturers (OEMs) "** (Remanufacture)	Sales: £667m Companies: 115 Employees: 14,475	3-year sales growth: 4.2% Forecast Sales: £1.1bn	This includes the core activity by the original equipment manufacturers remanufacturing alongside consultancy and ancillary services for remanufacture of clothing and shoes, construction materials, electronic and electrical equipment, furniture, household textiles, machinery and equipment, non-electrical games, toys and sporting goods, packaging, vehicles and other goods.
6	**Upgrade and Alteration** (Repair)	Sales: £585m Companies: 101 Employees: 12,685	3-year sales growth: 4.2% Forecast Sales: £951m	This includes the core upgrade and alteration activity alongside consultancy and ancillary services for repair of clothing and shoes, construction materials, electronic and electrical equipment, furniture, household textiles, machinery and equipment, non-electrical games, toys and sporting goods, packaging, vehicles and other goods
7	**Service** (Repair)	Sales: £566m Companies: 94 Employees: 12,258	3-year sales growth: 4.2% Forecast Sales: £934m	This includes the core service activity alongside consultancy and ancillary services for repair of clothing and shoes, construction materials, electronic and electrical equipment, furniture, household textiles, machinery and equipment, non-electrical games, toys

				and sporting goods, packaging, vehicles and other goods
8	**Maintenance** (Repair)	Sales: £540m Companies: 90 Employees: 11,710	3-year sales growth: 4.1% Forecast Sales: £885m	This includes the core maintenance activity alongside consultancy and ancillary services for repair of clothing and shoes, construction materials, electronic and electrical equipment, furniture, household textiles, machinery and equipment, non-electrical games, toys and sporting goods, packaging, vehicles and other goods.
9	**Engineering & Equipment for Repair** (Repair)	Sales: £521m Companies: 89 Employees: 11,288	3-year sales growth: 4.3% Forecast Sales: £844m	This includes the core engineering and equipment R&D and manufacture, supply and installation activity alongside consultancy and ancillary services for repair
10	**Leasing** (Rental)	Sales: £506m Companies: 99 Employees: 10,948	3-year sales growth: 4.2% Forecast Sales: £829m	This includes all core activities and alongside consultancy, software and training for leasing goods. It excludes the leasing of cars.
11	**Collection, Sanitation and Reuse (CSR, e.g. Milk Bottles)** (Reuse)	Sales: £481m Companies: 79 Employees: 10,421	3-year sales growth: 4.2% Forecast Sales: £802m	This includes the core collection, sanitation and reuse activity alongside consultancy and ancillary services for the reuse of clothing and shoes, construction materials, electronic and electrical equipment, furniture, household textiles, machinery and equipment, non-electrical games, toys and sporting goods, packaging, vehicles and other goods.
12	**First/Last Mile Logistics for Redistribution** (Redistribute)	Sales: £474m Companies: 78 Employees: 10,275	3-year sales growth: 4.2% Forecast Sales: £791m	This includes the core logistical activity alongside engineering, consultancy, equipment and ancillary services for redistribution of clothing and shoes, construction materials, electronic and electrical equipment, furniture, household textiles, machinery and equipment, non-electrical games, toys and sporting goods, packaging, vehicles and other goods.

London's Impact on Regional Chains and Networks of Supply

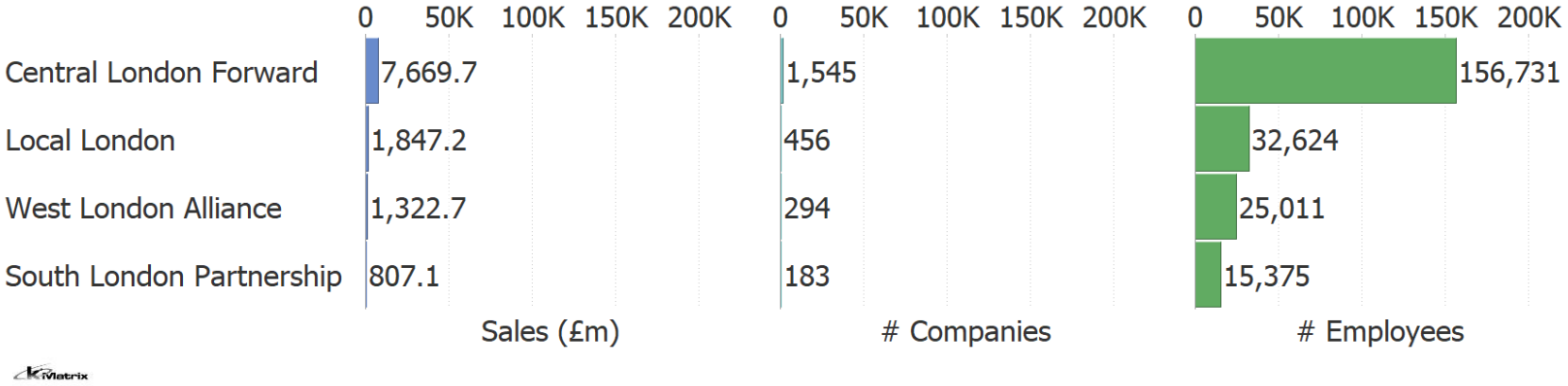
London's Circular Economy market was worth £11.6bn in 2024/25 and generated a further £4.2bn, or an additional 36.3% in terms of sales within the chains and networks of supply across the UK, outside of London.

The greatest beneficiary of London's Circular Economy sector, in terms of sales generated within the chains and networks of supply within a region is the North West, with £660m, representing 5.7% of London's total sales. This is followed by the West Midlands with £530m (4.5%), the North East with £474m (4.1%), the East of England with £412m (3.5%), Wales with £408m (3.5%), and the rest of the South East with £382m (3.3%).

Significant London sub-sectors which generate large sales outside of London include:

- Repair in the North West with £144.1m (6.5%) and the South East with £99.2m (4.5%)
- Remanufacture in the North West with £128.7m (6.0%), the North East with £118.2m (5.5%), and the West Midlands with £97.1m (4.6%)
- Recovery & Recycling in the North West with £81.7m (4.4%), and the South West with £80.1m (4.3%)

London's Sub-regions



London's largest Circular Economy market from 2019/20 through to 2024/25 was Central London Forward, with sales worth £7.7bn, which were generated by over 1,500 companies employing over 156,700 people in 2024/25. Sales growth was 7% between 2019/20 and 2024/25.

London's second-largest Circular Economy market from 2019/20 through to 2024/25 was Local London, with sales worth £1.8bn, which were generated by over 450 companies employing over 32,600 people in 2024/25. Sales growth was 6% between 2019/20 and 2024/25.

London's third-largest Circular Economy market from 2019/20 through to 2024/25 was West London Alliance, with sales worth £1.3bn, which were generated by almost 300 companies employing over 25,000 people in 2024/25. Sales growth was 7% between 2019/20 and 2024/25.

London's smallest Circular Economy market from 2019/20 through to 2024/25 was South London Partnership, with sales worth £807m, which were generated by over 180 companies employing over 15,300 people in 2024/25. Sales growth was 7% between 2019/20 and 2024/25.

Executive Summary 3: Green & Blue Infrastructure

London's Green & Blue Infrastructure was worth £2.4bn to London's economy in 2024/25. These sales were generated by over 1,000 businesses that employed over 19,200 people in the sector in 2024/25. Further details in report section 3.

London's Green & Blue Infrastructure Key Metrics

Sales

The Green & Blue Infrastructure market in London was worth £2.37bn in 2019/20, it then contracted to £2.1bn in 2020/21 and has since grown year on year and was worth £2.42bn in 2024/25.

Companies

The number of companies in London's Green & Blue Infrastructure market in 2019/20 was 988 and fell to 915 in 2020/21, they have since grown year on year with 1,027 companies in 2024/25.

Employment

Employment in London's Green & Blue Infrastructure market in 2019/20 was 18,526, and fell to 16,793 in 2020/21, they have since grown year on year with 19,223 employees in 2024/25.

Growth

Historically, London's Green & Blue Infrastructure market had a lower growth for sales, companies and employees between 2019/20 and 2021/22, but stronger growth in all three metrics between 2021/22 and 2024/25 compared to the UK. The Covid-19 pandemic impacted the market between 2019/20 and 2020/21, followed by a steady strengthening of the labour market to 2024/25:

Timeframe	London Sales growth	UK Sales growth	London Company growth	UK Company growth	London Employment growth	UK Employment growth
2019/20 to 2020/21	-12.2%	-8.1%	-9.3%	-8.1%	-9.4%	-8.5%
2020/21 to 2021/22	2.3%	2.8%	2.1%	2.8%	2.2%	3.1%
2021/22 to 2022/23	4.4%	2.6%	3.4%	2.6%	3.4%	2.9%
2022/23 to 2023/24	3.8%	3.2%	3.6%	3.2%	3.6%	3.2%

2023/24 to 2024/25	5.1%	4.3%	4.8%	4.3%	4.5%	3.9%

Note: cells shaded blue indicated stronger growth than the UK.

Exports

The value of exports in London's Green & Blue Infrastructure market in 2022/23 was £87m and were £93m in 2024/25. This accounted for 12% of the UK's Green & Blue Infrastructure market exports in 2024/25, lower than London's 18% share of the overall UK Green & Blue Infrastructure market.

London's export market grew 3.0% between 2022/23 and 2023/24 and 3.3% between 2023/24 and 2024/25. This growth was weaker than the UK which grew 8.2% between 2022/23 and 2023/24; and 4.4% between 2023/24 and 2024/25.

London's sub-sectors

London's Green & Blue Infrastructure market is split into three Level 2 sub-sectors and in 2024/25, Blue Infrastructure accounted for 76% of sales, 81% of Companies and 81% of Employees; Green Infrastructure accounted for 16% of Sales, 15% of companies and 15% of employees; and Engagement Facilitation accounted for 6% of sales, 4% of companies and 4% of employees.

London's sub-sector strengths

London's Green & Blue Infrastructure market is split into fifteen Level 3 sub-sectors and in 2024/25, the three largest sub-sectors by sales in accounted for 83% of the London total sales (82% in 2022/23) and are shaded blue in the table. The next three largest sub-sectors by sales account for a further 10% of London's total sales in (10% in 2022/23). Together these six sub-sectors accounted for 93% of sales (92% in 2023/24).

Sales Ranking	Level 3 Sub-sector	2024/25 Metrics	3-year Sales Growth (2022/23 to 2024/25) and Forecast Sales (2029/30)	Sub-sector Description
1	**Water Treatment and Distribution (WT&D)** (Blue Infrastructure)	Sales: £1.3bn Companies: 593 Employees: 11,513	3-year sales growth: 5.5% Forecast Sales: £1.6bn	This includes systems implementation, maintenance and development of water treatment and distribution equipment and services.
2	**WT&D Engineering** (Blue Infrastructure)	Sales: £397m Companies: 182 Employees: 3,336	3-year sales growth: 5.5% Forecast Sales: £470m	This includes field engineering, maintenance of pipes and valves, civil works (excavation, fabrication and

				construction etc), engineering design and general fabrication and welding services for the water industry.
3	**Agricultural Land** (Green Infrastructure)	Sales: £257m Companies: 30 Employees: 1,738	3-year sales growth: 33.3% Forecast Sales: £633m	This includes R&D, installation, supply, engineering services, training and other services associated with cropland, grassland and urban farming (including allotments, city farms, city beehives etc)
4	**Green Linkages** (Green Infrastructure)	Sales: £121m Companies: 61 Employees: 724	3-year sales growth: 15.7% Forecast Sales: £230m	This includes R&D, installation, supply, engineering services, training and other services associated with country parks, hedgerows, Regionally Important Geological Sites, Site of Special Scientific Interest (SSSI), Cemeteries, Golf Courses, Designated Wildlife Sites and Street Greenery (e.g. Trees, Planters)
5	**Community Activities** (Engagement Facilitation)	Sales: £66m Companies: 20 Employees: 369	3-year sales growth: 4.3% Forecast Sales: £112m	This includes the Facilitation of activities such as volunteering and stewardship, community events, and exercise and playground spaces.
6	**Engagement Support Services** (Engagement Facilitation)	Sales: £57m Companies: 17 Employees: 320	3-year sales growth: 4.3% Forecast Sales: £93m	This includes training and capacity building through the training of facilitators and volunteers for community activities; engagement orgainsation including funding and resources, partnership network services, monitoring and evaluation of health impact etc, and prescribers and referrers.

London's Impact on Regional Chains and Networks of Supply

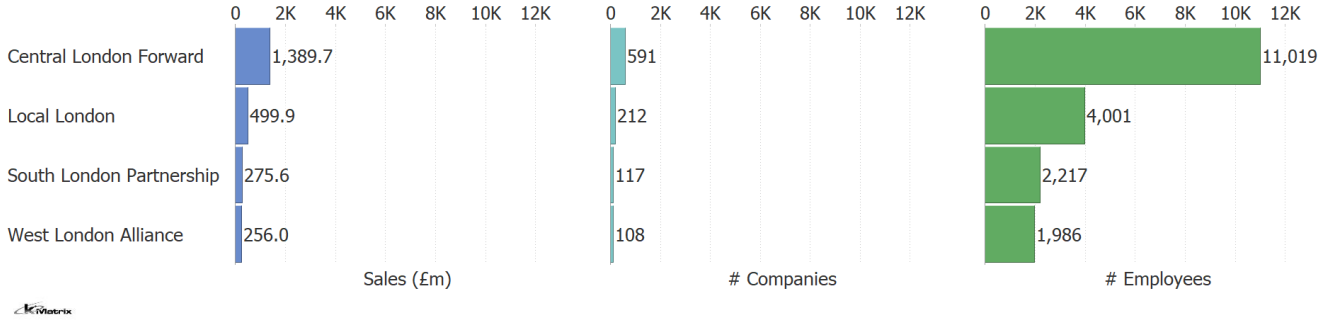
London's Green & Blue Infrastructure market was worth £2.4bn in 2024/25 and generated a further £864m, or an additional 35.7% in terms of sales within the chains and networks of supply across the UK, outside of London.

The greatest beneficiary of London's Green & Blue Infrastructure sector, in terms of sales generated within the chains and networks of supply within a region, is the North West, with £143m, representing 5.9% of London's total sales. This is followed by the West Midlands with £135m (5.6%), the North East with £114m (4.7%), the East of England with £89m (3.7%), Yorkshire & Humber with £81m (3.3%), and Wales with £66m (2.7%).

Significant London sub-sectors which generate large sales outside of London include:

- Water Treatment and Distribution (WT&D) in the North West with £88.0m (6.6%), West Midlands with £76.7m (5.7%), and the East of England with £62.7m (4.7%)
- WT&D Engineering in the North East with £27.0m (6.8%), the West Midlands with £24.6m (6.2%), and Yorkshire & Humber with £18.6m (4.7%)
- Agricultural Land in the North West with £18.0m (7.0%), and the West Midlands with £16.4m (6.4%)

London's Sub-regions



London's largest Green & Blue Infrastructure market from 2019/20 through to 2024/25 was Central London Forward, with sales worth £1.4bn, which were generated by over 590 companies employing over 11,000 people in 2024/25. Sales growth was 2% between 2019/20 and 2024/25.

London's second-largest Green & Blue Infrastructure market from 2019/20 through to 2024/25 was Local London, with sales worth £500m, which were generated by over 210 companies employing over 4,000 people in 2024/25. Sales growth was 4% between 2019/20 and 2024/25.

London's third-largest Green & Blue Infrastructure market from 2019/20 through to 2024/25 was West London Alliance, with sales worth £276m, which were generated by over 110 companies employing over 2,200 people in 2024/25. Sales growth was 4% between 2019/20 and 2024/25.

London's smallest Green & Blue Infrastructure market from 2019/20 through to 2024/25 was South London Partnership, with sales worth £256m, which were generated by over 100 companies employing almost 2,000 people in 2024/25. Sales contracted -2% between 2019/20 and 2024/25.

Executive Summary 4: Climate Adaptation

London's Climate Adaptation market was worth £1.9bn to London's economy in 2024/25. These sales were generated by over 1,000 businesses that employed over 5,700 people in the sector in 2024/25. Further details in report section 4.

London's Climate Adaptation Key Metrics

Sales

The Climate Adaptation market in London was worth £1.85bn in 2019/20, it then contracted to £1.75bn in 2020/21 and has since grown year on year and was worth £1.88bn in 2024/25.

Companies

The number of companies in London's Climate Adaptation market in 2019/20 was 990 and fell to 941 in 2020/21, they have since grown year on year with 1,014 companies in 2024/25.

Employment

Employment in London's Climate Adaptation market in 2019/20 was 5,671, and fell to 5,398 in 2020/21, they have since grown year on year with 5,724 employees in 2024/25.

Growth

Historically, London's Climate Tech sector generally had a higher growth for sales, companies and employees compared to the UK. The Covid-19 pandemic impacted the market between 2019/20 and 2020/21, followed by a strong labour market rebound to 2022/23, and a slowing labour market for the following two years:

Timeframe	London Sales growth	UK Sales growth	London Company growth	UK Company growth	London Employment growth	UK Employment growth
2019/20 to 2020/21	-10.6%	-7.3%	-4.0%	-13.9%	-11.4%	-12.9%
2020/21 to 2021/22		5.1%		4.6%		5.2%
2021/22 to 2022/23		7.0%	4.3%	9.4%		9.3%
2022/23 to 2023/24		8.3%		8.0%		6.9%

2023/24 to 2024/25	9.9%	9.5%	9.4%	9.1%	8.0%	7.9%

Note: cells shaded blue indicated stronger growth than the UK.

Exports

The value of exports in London's Climate Adaptation market in 2022/23 was £84m and were £87m in 2024/25. This accounted for 24% of the UK's Climate Adaptation market exports in 2024/25, slightly higher than London's 23% share of the overall UK Climate Adaptation market.

London's export market grew 1.8% between 2022/23 and 2023/24 and 1.8% between 2023/24 and 2024/25. This growth was weaker than the UK which grew 1.5% between 2022/23 and 2023/24; and 2.0% between 2023/24 and 2024/25.

London's sub-sectors

London's Climate Adaptation market is split into twelve Level 2 sub-sectors and in 2024/25, three accounted for 71% of sales, 72% of Companies and 72% of Employees. These three are made up of Water 46% of sales (46% in 2022/23), ICT 12% (12% in 2022/23) and Built Environment 12% (12% in 2022/23).

London's sub-sector strengths

London's Climate Adaptation is split into twelve Level 2 sub-sectors and in 2024/25, the three largest sub-sectors by sales in 2024/25 accounted for 71% of the London total sales (71% in 2022/23) and are shaded blue in the table. The next three largest sub-sectors by sales account for a further 20% of London's total sales in (20% in 2022/23). Together these six sub-sectors accounted for 90% of sales (90% in 2023/24).

Sales Ranking	Level 2 Sub-sector	2024/25 Metrics	3-year Sales Growth (2022/23 to 2024/25) and Forecast Sales (2029/30)	Sub-sector Description
1	**Water**	Sales: £870m Companies: 491 Employees: 2,264	3-year sales growth: 3.9% Forecast Sales: £1.2bn	This includes systems implementation, maintenance and development where they are intended for Climate Adaptation
2	**Information & Communication Technology**	Sales: £228m Companies: 114 Employees: 726	3-year sales growth: 3.4% Forecast Sales: £313m	This includes systems development and implementation and R&D where they are intended for Climate Adaptation

3	**Built Environment**	Sales: £226m Companies: 123 Employees: 708	3-year sales growth: 3.2% Forecast Sales: £305m	This includes construction and retrofit, energy efficiency and technical services, where intended for Climate Adaptation
4	**Energy**	Sales: £149m Companies: 83 Employees: 444	3-year sales growth: 3.6% Forecast Sales: £201m	This includes systems development and implementation and R&D where they are intended for Climate Adaptation
5	**Professional Services**	Sales: £127m Companies: 63 Employees: 354	3-year sales growth: 3.8% Forecast Sales: £172m	This includes specific professional services for Climate Adaptation including architectural services, risk management and business continuity, insurance, finances and consulting.
6	**Transport**	Sales: £97m Companies: 46 Employees: 265	3-year sales growth: 3.5% Forecast Sales: £132m	This includes systems implementation, maintenance and development for improved transport infrastructure

London's Impact on Regional Chains and Networks of Supply

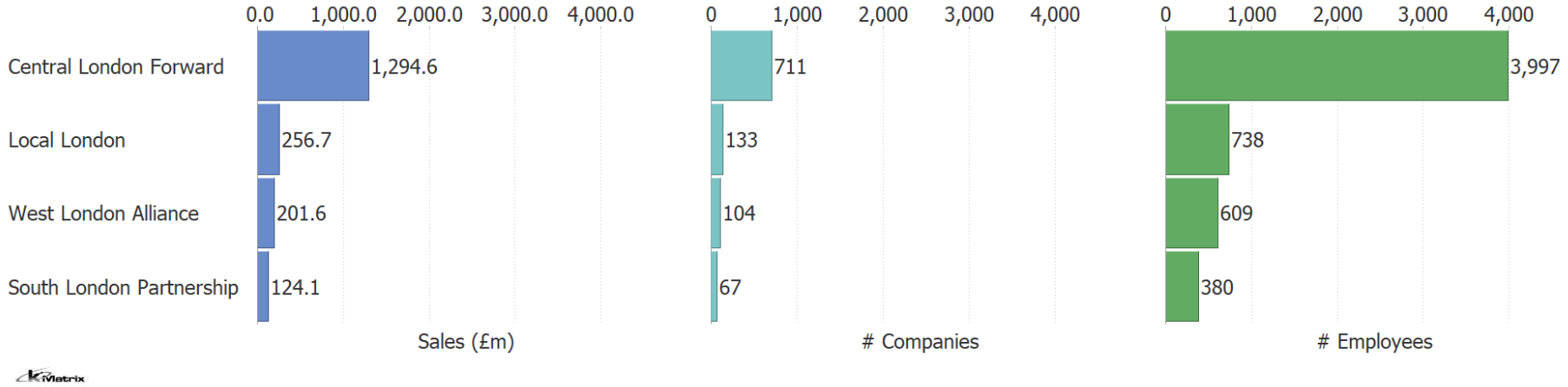
London's Climate Adaptation market was worth £1.9bn in 2024/25 and generated a further £664m, or an additional 35.3% in terms of sales within the chains and networks of supply across the UK, outside of London.

The greatest beneficiary of London's Climate Adaptation sector, in terms of sales generated within the chains and networks of supply within a region, is the North West, with £89m, representing 4.8% of London's total sales. This is followed by the West Midlands with £88m (4.7%), the North East with £73m (3.9%), Wales with £73m (3.9%), Yorkshire & Humber with £70m (3.7%), and the rest of the South East with £66m (3.5%).

Significant London sub-sectors which generate large sales outside of London include:

- Built Environment in the North West with £17.4m (7.7%), and the North East with £10.5m (4.7%)
- Energy in the North West with £10.7m (7.1%)
- ICT in the North West with £11.4m (5.0%), Wales with £11.0m (4.8%), and the West Midlands with £10.4m (4.5%)

London's Sub-regions



London's largest Climate Adaptation market from 2019/20 through to 2024/25 was Central London Forward, with sales worth £1.3bn, which were generated by over 710 companies employing almost 4,000 people in 2024/25. Sales contracted by -1% between 2019/20 and 2024/25.

London's second-largest Climate Adaptation market from 2019/20 through to 2024/25 was Local London, with sales worth £257m, which were generated by over 130 companies employing over 730 people in 2024/25. Sales growth was 3% between 2019/20 and 2024/25.

London's third-largest Climate Adaptation market from 2019/20 through to 2024/25 was West London Alliance, with sales worth £202m, which were generated by over 100 companies employing over 600 people in 2024/25. Sales growth was 1% between 2019/20 and 2024/25.

London's smallest Climate Adaptation market from 2019/20 through to 2024/25 was South London Partnership, with sales worth £124m, which were generated by over 65 companies employing 380 people in 2024/25. Sales contracted by -1% between 2019/20 and 2024/25.

Executive Summary 5: LCEGS

London's Low Carbon and Environmental Goods and Services (LCEGS) sector was worth £60.7bn to London's economy in 2024/25. These sales were generated by over 22,000 businesses that employed over 372,800 people in the sector in 2024/25. Further details in report section 5.

London's LCEGS Key Metrics

Sales

The Low Carbon and Environmental Goods and Services sector in London grew year on year between 2007/08 and 2019/20, and was worth £50.0bn in 2019/20, it then contracted to £42.9bn in 2020/21 and has since grown year on year and was worth £60.7bn in 2024/25.

Companies

The number of companies in London's Low Carbon and Environmental Goods and Services sector in 2019/20 was 17,054 and fell to 16,376 in 2020/21, they have since grown year on year with 22,016 companies in 2024/25.

Employment

Employment in London's Low Carbon and Environmental Goods and Services sector in 2019/20 was 302,021, and fell to 269,714 in 2020/21, they have since grown year on year with 372,844 employees in 2024/25.

Growth

Historically, London's LCEGS sector had a higher sales growth, but variable company and employment growth compared to the UK. The Covid-19 pandemic impacted the market between 2019/20 and 2020/21, followed by a strong labour market rebound to 2023/24, and a slowing labour market to 2024/25:

Timeframe	London Sales growth	UK Sales growth	London Company growth	UK Company growth	London Employment growth	UK Employment growth
2007/08 to 2019/20	139%	119%	71%	109%	94%	112%
2019/20 to 2020/21	-14.1%	-9.1%	-4.1%	-12.1%	-10.7%	-12.5%
2020/21 to 2021/22	6.7%	6.4%	7.0%	5.9%	6.7%	5.8%

2021/22 to 2022/23	9.7%	8.5%	4.7%	9.1%	8.0%	10.5%
2022/23 to 2023/24	9.8%	8.9%	9.6%	8.3%	9.9%	8.2%
2023/24 to 2024/25	10.0%	9.9%	9.5%	9.2%	9.2%	9.3%

Note: cells shaded blue indicated stronger growth than the UK.

Exports

The value of exports in London's Low Carbon and Environmental Goods and Services sector in 2019/20 was £3.4bn, they fell to £2.8bn in 2020/21 and were £4.2bn in 2024/25. This accounted for 21% of the UK's LCEGS exports in 2024/25, in line with London's 21% share of the overall UK LCEGS market (London's share of the market was 22% in 2019/20).

London's export market grew 10.3% between 2022/23 and 2023/24 and 10.1% between 2023/24 and 2024/25. This growth was stronger than the UK which grew 10.4% between 2022/23 and 2023/24; and 7.2% between 2023/24 and 2024/25.

London's sub-sectors

In 2024/25 London's Low Carbon and Environmental Goods and Services sector was made up of the following proportions: Low Carbon 61%, Renewable Energy 30% and Environmental 9%. This could be a gradual change from the composition in 2019/20 and 2020/21 when it was: Low Carbon 58%, Renewable Energy 31% and Environmental 11%.

London's sub-sector strengths

In 2024/25 the five largest sub-sectors by sales in the Low Carbon and Environmental Goods and Services sector account for 74% of the London total sales (71% in 2019/20, 73% in 2022/23) and are shaded blue in the table. The next six largest sub-sectors by sales account for a further 22% of London's total sales in (26% in 2019/20, and 23% in 2022/23). Note: sub-sectors marked with * are also present in Climate Tech

Sales Ranking	Level 2 Sub-sector	2024/25 Metrics	3-year Sales Growth (2022/23 to 2024/25) and Forecast Sales (2029/30)	Sub-sector Description
1	**Carbon Finance*** (Low Carbon)	Sales: £24.3bn Companies: 7,972 Employees: 110,868	3-year sales growth: 27.2% Forecast Sales: £46.6bn	This includes Carbon finance trading houses and consultancies

2	**Wind*** (Renewable Energy)	Sales: £6.5bn Companies: 2,264 Employees: 38,263	3-year sales growth: 23.1% Forecast Sales: £12.3bn	This includes control systems development and manufacture, drive train development, manufacture and systems integration and consulting houses
3	**Geothermal** (Renewable Energy)	Sales: £5.7bn Companies: 1,935 Employees: 38,491	3-year sales growth: 17.4% Forecast Sales: £9.2bn	This includes head office functions, systems and design and international consultancy
4	**Building Technologies*** (Low Carbon	Sales: £4.5bn Companies: 1,862 Employees: 31,365	3-year sales growth: 19.1% Forecast Sales: £7.7bn	This includes head office functions, building systems design and consultancy and building systems providers and installers
5	**Alternative Fuels** (Low Carbon)	Sales: £4.2bn Companies: 1,702 Employees: 37,928	3-year sales growth: 17.4% Forecast Sales: £6.7bn	This includes R&D functions, alternative fuel providers and process implementation accounting.
6	**Solar** (Renewable Energy)	Sales: £3.5bn Companies: 1,008 Employees: 23,347	3-year sales growth: 8.7% Forecast Sales: £6.2bn	This includes head office functions and providers and installers
7	**Alternative Fuel Vehicle** (Low Carbon)	Sales: £2.5bn Companies: 1,052 Employees: 17,569	3-year sales growth: 16.4% Forecast Sales: £4.0bn	This includes head office functions, prototype applications and vehicle sales
8	**Biomass*** (Renewable Energy)	Sales: £2.2bn Companies: 878 Employees: 17,204	3-year sales growth: 15.9% Forecast Sales: £3.4bn	This includes systems development and implementation and R&D
9	**Water & Waste Water Treatment** (Environmental)	Sales: £1.8bn Companies: 792 Employees: 15,376	3-year sales growth: 5.5% Forecast Sales: £2.1bn	This includes systems implementation, maintenance and development
10	**Waste Management*** (Environmental)	Sales: £1.7bn Companies: 657	3-year sales growth: 8.8% Forecast Sales: £2.2bn	This includes process development and new process implementation and consulting

		Employees: 12,988		
11	**Recovery and Recycling** (Environmental)	Sales: £1.5bn Companies: 610 Employees: 10,015	3-year sales growth: 10.8% Forecast Sales: £2.0bn	This includes waste collection, glass stock processing and paper feedstock processing

London's Impact on Regional Chains and Networks of Supply

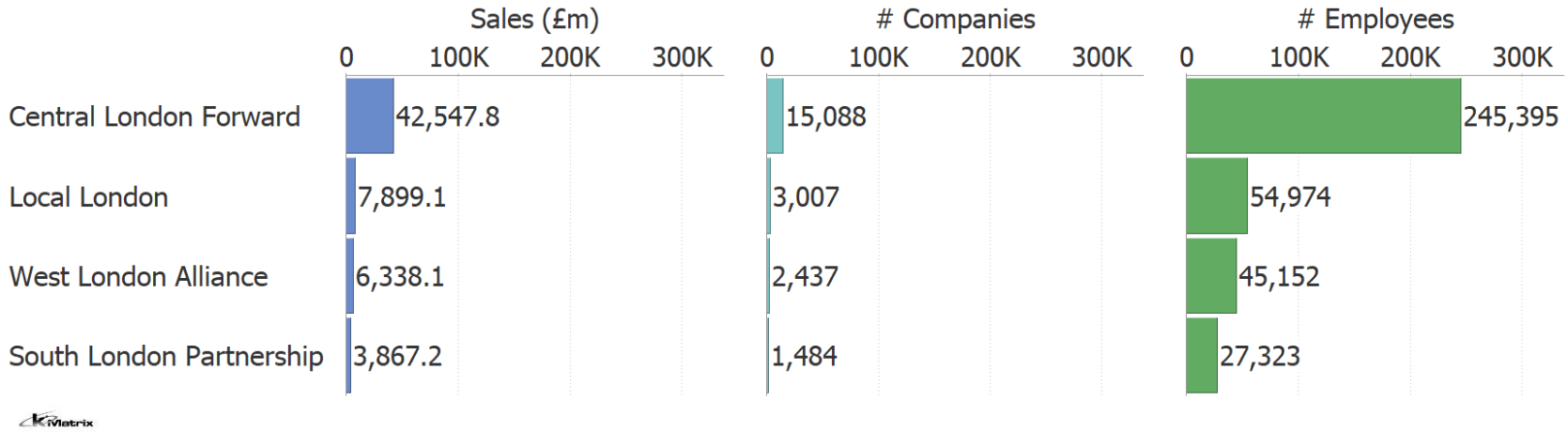
London's LCEGS market was worth £60.7bn in 2024/25 and generated a further £18.3bn, or an additional 30.2% in terms of sales within the chains and networks of supply across the UK, outside of London.

The greatest beneficiary of London's LCEGS sector, in terms of sales generated within the chains and networks of supply within a region is the North West, with £3.2bn, representing 5.3% of London's total sales. This is followed by the West Midlands with £2.6bn (4.2%), Yorkshire & Humber with £2.1bn (3.4%), Wales with £2.0bn (3.2%) the North East with £1.7bn (2.9%), and the rest of the South East with £1.5bn (2.5%).

Significant London sub-sectors which generate large sales outside of London include:

- Water and Wastewater Treatment in the North West with £95.8m (5.3%), and the West Midlands with £94.4m (5.2%)
- Alternative Fuel Vehicle in the North West with £91.0m (3.6%), the West Midlands with £57.1m (2.3%) and the North East with £55.8m (2.2%)
- Alternative Fuels in the West Midlands with £262.3m (6.3%), the North West with £229.9m (5.5%), and Yorkshire & Humber with £194.1m (4.7%)
- Carbon Finance in the North West with £1.7bn (7.0%), the West Midlands with £1.3bn (5.5%) and Yorkshire & Humber with £1.2bn (4.8%)
- Building Technologies in the North West with £320.8m (7.1%), Wales with £229.6m (5.1%) and the West Midlands with £220.6m (4.9%)
- Solar in Yorkshire & Humber with £170.6m (4.9%), the West Midlands with £146.7m (4.2%), and the North West with £144.2m (4.1%)
- Wind in the North West with £208.9m (3.2%) and the North East with £158.2m (2.4%)

London's Sub-regions



London's largest LCEGS market from 2010/11 through to 2024/25 was Central London Forward, with sales worth £42.5bn, which were generated by over 15,000 companies employing almost 245,400 people in 2024/25. Sales growth was 177% between 2010/11 and 2024/25.

London's second-largest LCEGS market from 2010/11 through to 2024/25 was Local London, with sales worth £7.9bn, which were generated by over 3,000 companies employing almost 55,000 people in 2024/25. Sales growth was 107% between 2010/11 and 2024/25.

London's third-largest LCEGS market from 2010/11 through to 2024/25 was West London Alliance, with sales worth £6.3bn, which were generated by over 2,400 companies employing over 45,000 people in 2024/25. Sales growth was 83% between 2010/11 and 2024/25.

London's smallest LCEGS market from 2010/11 through to 2024/25 was South London Partnership, with sales worth £3.9bn, which were generated by almost 1,500 companies employing over 27,300 people in 2024/25. Sales growth was 110% between 2010/11 and 2024/25.

Executive Summary 6: Green Policy Areas

This chapter presents an analysis of the potential growth of green jobs in London between 2025 and 2050 based on the analysis of likely growth trajectories of 11 policy areas which were defined drawing on the decarbonisation pathways set out by the Climate Change Committee. Further details in report section 6. These policy areas are:

- Homes and Buildings
- Low Carbon Transport
- Power
- Industrial decarbonisation, hydrogen and carbon capture and storage
- Green Finance
- Climate change research & development
- Climate change strategy, policy, monitoring and planning
- Climate adaptation
- Reducing localised pollution
- Circular economy
- Urban Green Infrastructure

According to our projection, there are five policy areas which provide the overwhelming majority of green jobs in London by 2050:

- **Green finance**, where 401,400 jobs are projected under the central scenario
- **Circular economy**, where 344,400 jobs are projected under the central scenario
- **Power**, where 268,300 jobs are projected under the central scenario
- **Homes and Buildings**, where 173,600 jobs are projected under the central scenario
- **Low Carbon Transport**, where 171,200 jobs are projected under the central scenario

1. London's Climate Tech Sector Analysis

1.1 London and the UK's Climate Tech Timeseries

Figure 1.1: Climate Tech London – Total Sales (£m)

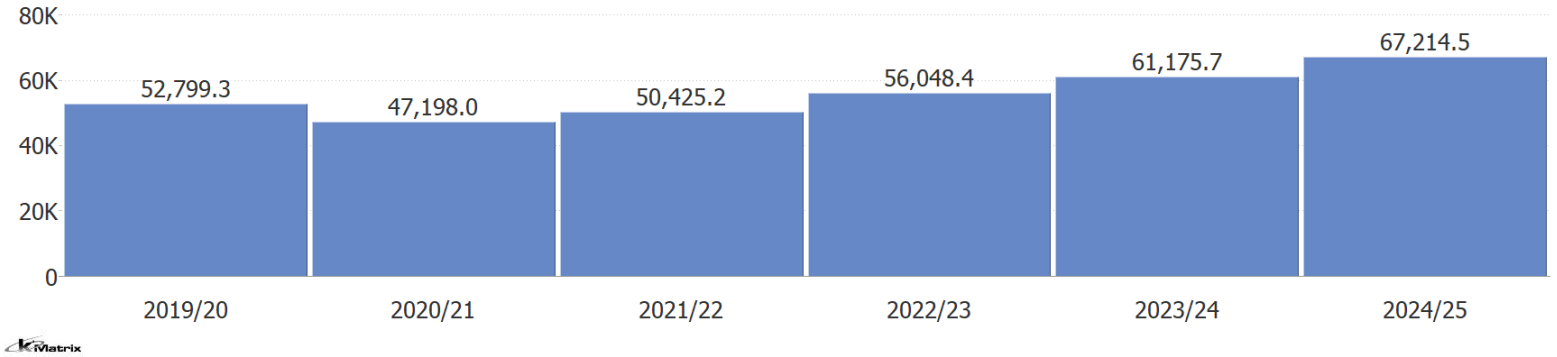
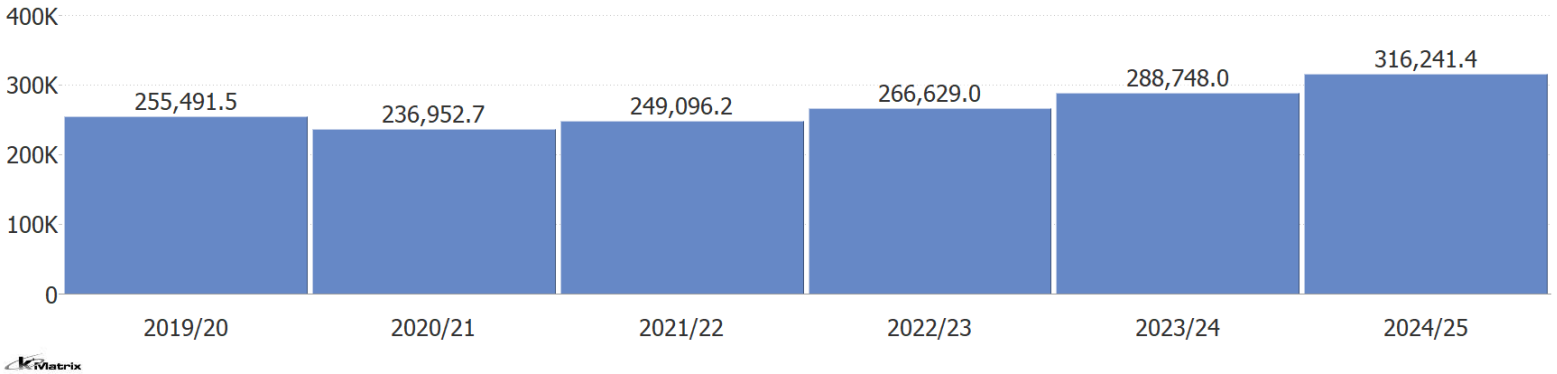


Figure 1.2: Climate Tech UK – Total Sales (£m)



Figures 1.1 and 1.2 illustrate the market contraction of sales for the Climate Tech sector in both the UK and London between 2019/20 and 2020/21, the London market contracted -11% and the UK market by -7% between 2019/20 and 2020/21 when the pandemic was at its peak. The London market grew by 20% and the UK by 19% between 2022/23 and 2024/25. Overall, the

London market has grown 27%, and the UK market has grown 24% between 2019/20 and 2024/25. If Carbon Finance is removed, growth was 21% in London and 21% in the UK between 2019/20 and 2024/25.

Figure 1.3: Climate Tech London – Total Number of Companies

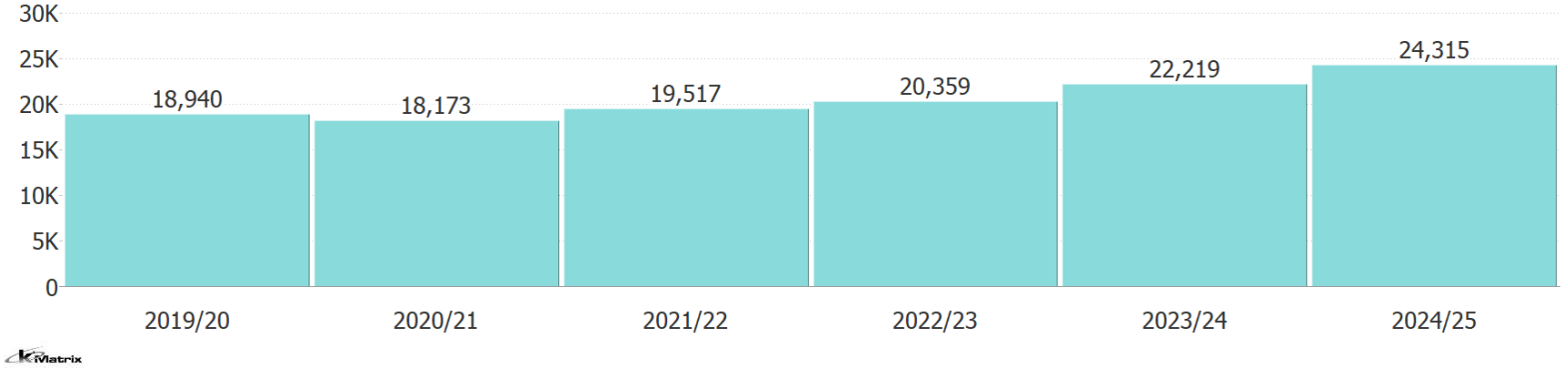
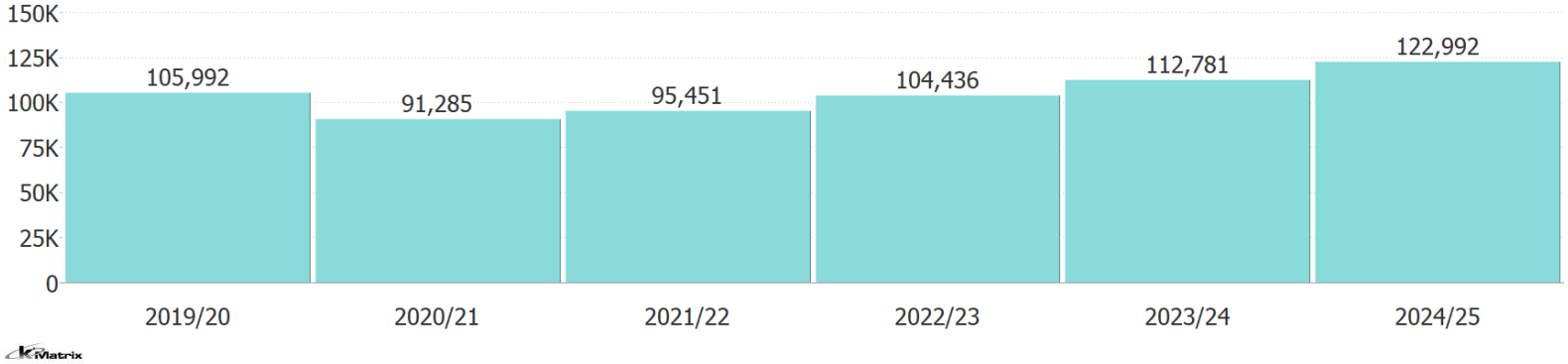


Figure 1.4: Climate Tech UK – Total Number of Companies



Figures 1.3 and 1.4 illustrate during the peak of the pandemic in the year between 2019/20 and 2020/21 the number of companies in the London market contracted by -4% and the UK market by -14% and this illustrates the resilience within the company base in London. The London company base grew by 19% and the UK by 18% between 2022/23 and 2024/25. Overall, the London company base has grown 28%, and the UK has grown 16% between 2019/20 and 2024/25.

Figure 1.5: Climate Tech London – Total Number of Employees

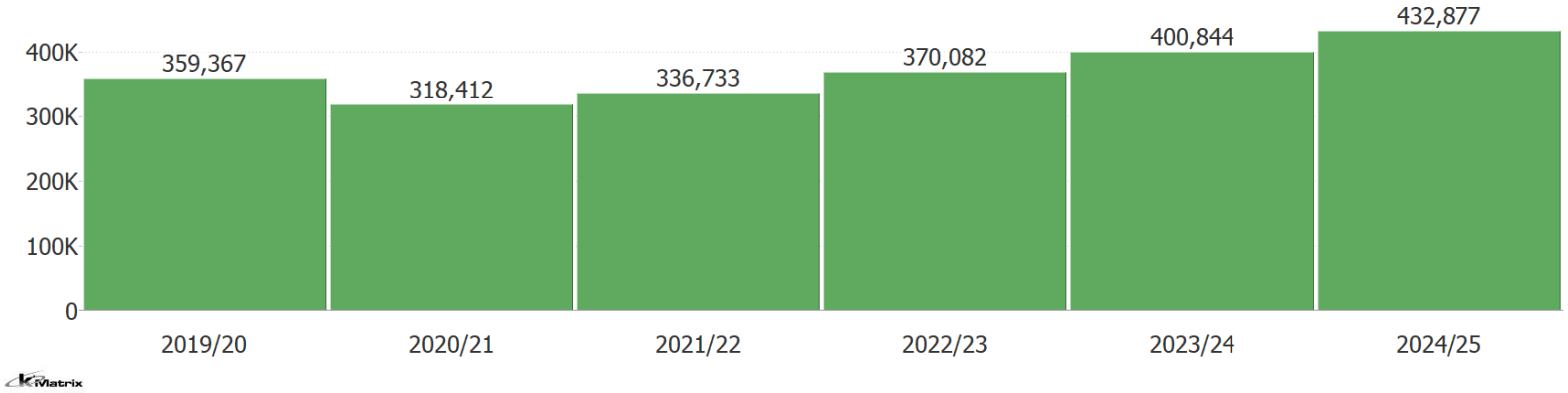
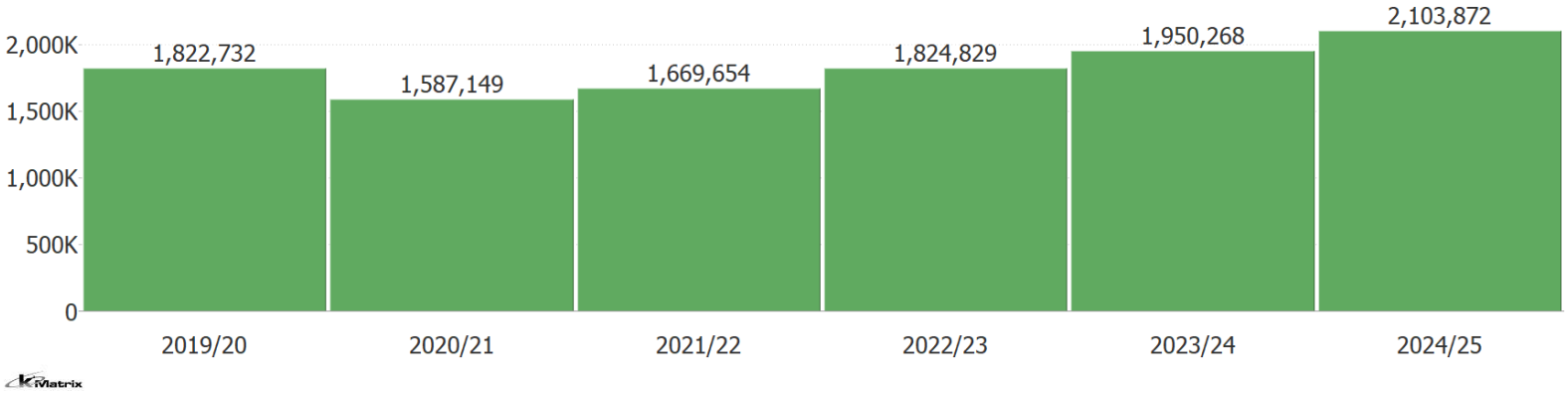


Figure 1.6: Climate Tech UK – Total Number of Employees



Figures 1.5 and 1.6 illustrate the annual number of employees within the Climate Tech sector for both the UK and London. During the peak of the pandemic in the year between 2019/20 and 2020/21 the number of employees in the London market contracted by -11% and the UK market by -13%. London employment grew by 17% and the UK by 15% between 2022/23 and 2024/25. Overall, the London employee base has grown 21%, and the UK has grown 15% between 2019/20 and 2024/25.

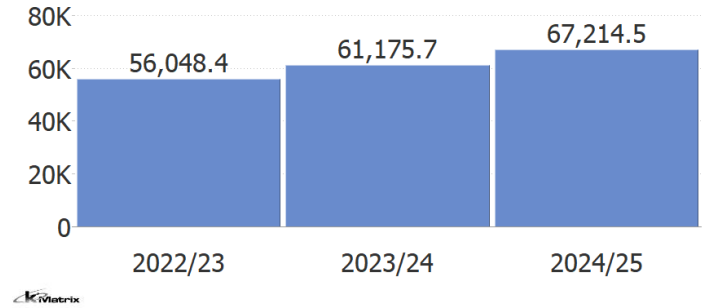
1. 2 London's Climate Tech Sector Analysis

This section of the report analyses London's Climate Tech market at Level 2.

1.2.1 Climate Tech Compared by Year

In this section of the report London's Climate Tech performance is compared for the last three years for the three key measures of Sales, Employment and Growth.

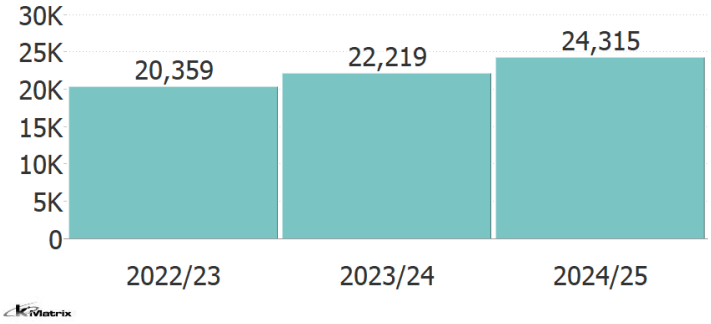
Figure 1.7: Sales 2022/23 to 2024/25 in £m



London's Climate Tech sales in 2024/25 were £67.2bn, up from £56.0bn in 2022/23.

Annual sales growth in London's Climate Tech sector was 9.1% from 2022/23 to 2023/24, and 9.9% from 2023/24 to 2024/25. In comparison UK sales growth in Climate Tech was 8.3% and 9.5%, respectively.

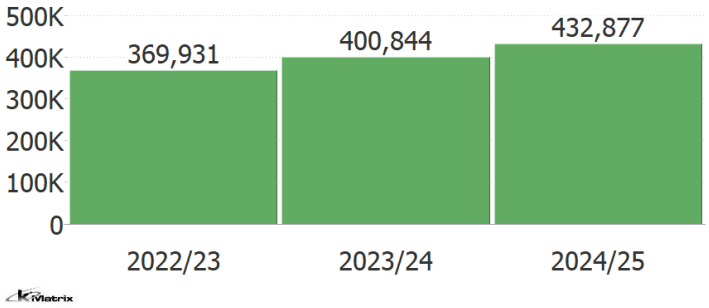
Figure 1.8: Companies 2022/23 to 2024/25



London's Climate Tech company count in 2024/25 was 24,315, up from 20,359 in 2022/23.

Annual company growth in London's Climate Tech sector was 9.1% from 2022/23 to 2023/24, and 9.4% from 2023/24 to 2024/25. In comparison UK company growth in Climate Tech was 8.0%, and 9.1%, respectively.

Figure 1.9: Employment 2022/23 to 2024/25



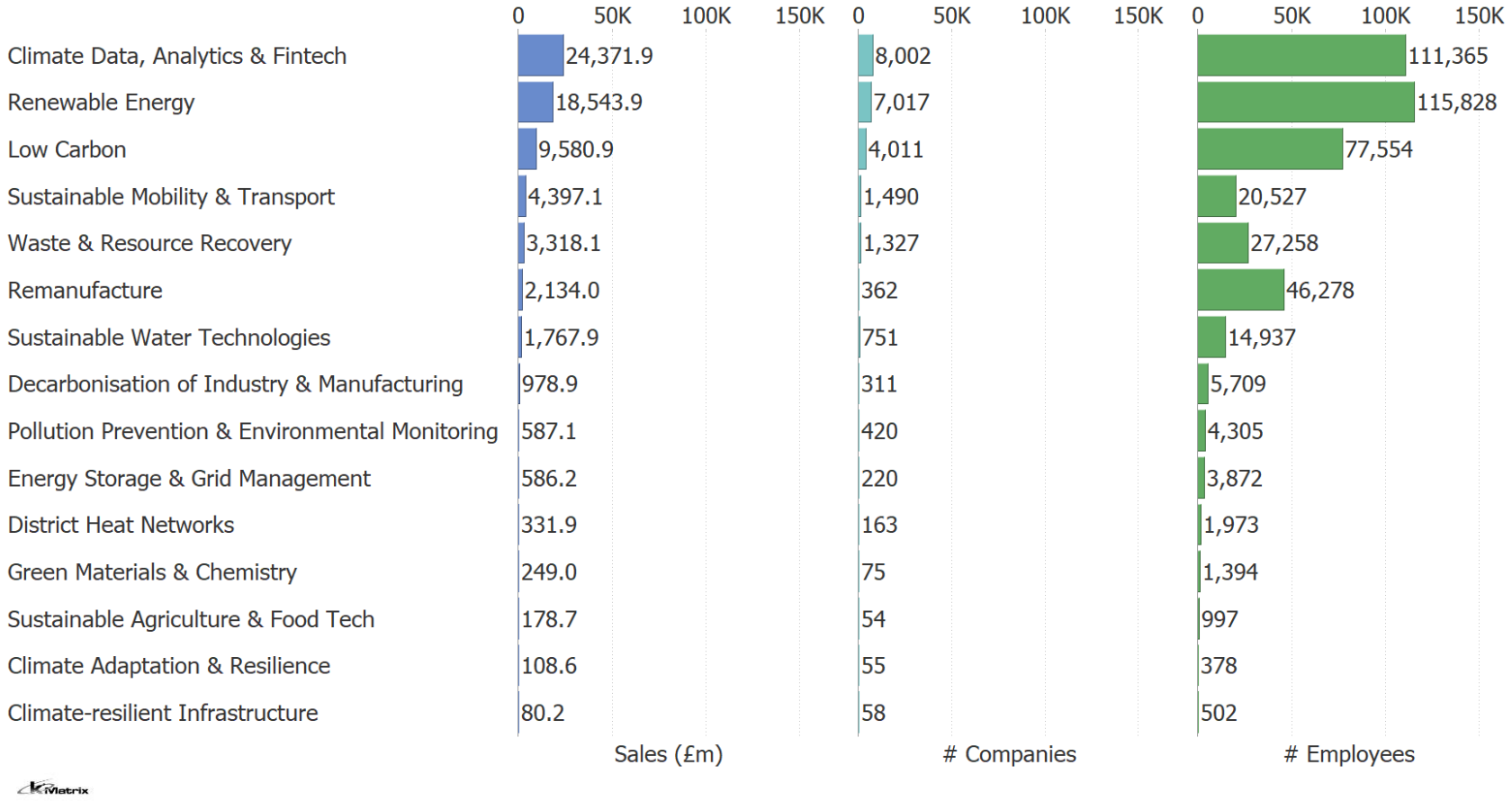
London's Climate Tech employment in 2024/25 was 432,877, up from 369,931 in 2022/23.

Annual employment growth in London's Climate Tech was 8.4% from 2022/23 to 2023/24, and 8.0% from 2023/24 to 2024/25. In comparison UK employment growth in Climate Tech 6.9% and 7.9% respectively.

1.2.2 Climate Tech at Level 2

The analysis in this section of the report focuses on the Level 2 split of Climate Tech in London for each of the last three years.

Figure 1.10: Sales, Companies and Employees 2024/25 in £m (Level 2)



The Climate Tech sector is split into fifteen Level 2 sub-sectors, of which three account for 78% of sales, 78% of Companies and 70% of Employees (Figure 1.10). The top three sub-sectors are made up of Climate Data, Analytics & Fintech accounting for 36% of sales (34% in 2022/23), Renewable Energy 28% (28% in 2022/23) and Low Carbon 14% (15% in 2022/23).

Table 1.1: London and UK Total GDP Compared to Climate Tech Level 2 Sales 2023/24 – sorted by size of London's Sub-sectors

Level 2 Sub-sector	London's Climate Tech Sales 2023/24	Climate Tech as a % of London's Total GDP	Sub-sector Proportion	UK Climate Tech Sales 2023/24	Climate Tech as a % of UK's Total GDP	Sub-sector Proportion
Climate Data, Analytics & Fintech	£21,454.7m	3.47%	35.1%	£32,888.3m	1.22%	11.4%
Renewable Energy	£17,001.6m	2.75%	27.8%	£100,277.7m	3.73%	34.7%
Low Carbon	£8,876.0m	1.44%	14.5%	£70,094.1m	2.61%	24.3%
Sustainable Mobility & Transport	£3,920.2m	0.63%	6.4%	£30,732.3m	1.14%	10.6%
Waste & Resource Recovery	£3,176.8m	0.51%	5.2%	£19,906.0m	0.74%	6.9%
Remanufacture	£2,079.0m	0.34%	3.4%	£8,639.6m	0.32%	3.0%
Sustainable Water Technologies	£1,722.0m	0.28%	2.8%	£10,395.6m	0.39%	3.6%
Decarbonisation of Industry & Manufacturing	£951.6m	0.15%	1.6%	£3,762.3m	0.14%	1.3%
Pollution Prevention & Environmental Monitoring	£561.5m	0.09%	0.9%	£4,777.1m	0.18%	1.7%
Energy Storage & Grid Management	£553.4m	0.09%	0.9%	£3,466.9m	0.13%	1.2%
District Heat Networks	£280.7m	0.05%	0.5%	£1,483.9m	0.06%	0.5%
Green Materials & Chemistry	£242.5m	0.04%	0.4%	£814.1m	0.03%	0.3%
Sustainable Agriculture & Food Tech	£175.2m	0.03%	0.3%	£591.7m	0.02%	0.2%
Climate Adaptation & Resilience	£106.8m	0.02%	0.2%	£517.0m	0.02%	0.2%
Climate-resilient Infrastructure	£73.5m	0.01%	0.1%	£401.5m	0.01%	0.1%
Total	**£61,175.7m**	**9.90%**	**100.0%**	**£288,747.9m**	**10.73%**	**100.0%**

London's 2023/24 Total Gross Domestic Product was £617,916m and the UK's Total Gross Domestic Product was £2,689,853m. London's total GPD and UK's Total GDP values are from the ONS[1] and 2023/24 sector data was used due to lag in data from the ONS.

Sales have been compared with GDP to give an indication of the scale and significance of the sector relative to the whole local economy. Table 1.1 shows that in 2023/24 London's Climate Tech sector contributed a smaller proportion of GDP than the national average, with 9.90% for London compared with 10.73% for the UK.

Within London's fifteen Level 2 sub-sectors, five contributed a larger proportion of GDP than the national average: Climate Tech, Data Analytics & Fintech with 3.47% compared with 1.22% for the UK; Remanufacture with 0.34% compared with 0.32% for the UK; Decarbonisation of Industry & Manufacturing with 0.15% compared with 0.14% for the UK; Green Materials & Chemistry with 0.04% compared with 0.03% for the UK; and Sustainable Agriculture & Food Tech with 0.03% compared with 0.02% for the UK. The other ten sub-sectors contributed a smaller proportion to London's GDP than the national average.

Table 1.2: London and UK Business Base Compared to Climate Tech Level 2 Companies 2024/25

Level 2 Sub-sector	London's Climate Tech Companies 2024/25	Climate Tech as a % of London's Total Companies	Sub-sector Proportion	UK Climate Tech Companies 2024/25	Climate Tech as a % of UK Total Companies	Sub-sector Proportion
Climate Data, Analytics & Fintech	8,002	1.51%	32.9%	13,944	0.53%	11.3%
Renewable Energy	7,017	1.32%	28.9%	39,501	1.49%	32.1%
Low Carbon	4,011	0.76%	16.5%	31,147	1.18%	25.3%
Sustainable Mobility & Transport	1,490	0.28%	6.1%	17,338	0.66%	14.1%
Waste & Resource Recovery	1,327	0.25%	5.5%	8,585	0.32%	7.0%
Sustainable Water Technologies	751	0.14%	3.1%	4,278	0.16%	3.5%
Pollution Prevention & Environmental Monitoring	420	0.08%	1.7%	2,180	0.08%	1.8%
Remanufacture	362	0.07%	1.5%	1,505	0.06%	1.2%

[1] https://www.ons.gov.uk/economy/grossdomesticproductgdp/datasets/regionalgrossdomesticproductlocalauthorities

Decarbonisation of Industry & Manufacturing	311	0.06%	1.3%	1,275	0.05%	1.0%
Energy Storage & Grid Management	220	0.04%	0.9%	1,422	0.05%	1.2%
District Heat Networks	163	0.03%	0.7%	829	0.03%	0.7%
Green Materials & Chemistry	75	0.01%	0.3%	259	0.01%	0.2%
Climate-resilient Infrastructure	58	0.01%	0.2%	297	0.01%	0.2%
Climate Adaptation & Resilience	55	0.01%	0.2%	263	0.01%	0.2%
Sustainable Agriculture & Food Tech	54	0.01%	0.2%	169	0.01%	0.1%
Total	**24,315**	**4.58%**	**100.0%**	**122,992**	**4.65%**	**100.0%**

The total number of enterprises in London in 2024 was 530,815 and the total number of enterprises in the UK in 2024 was 2,645,840. London's economically active people and UK's economically active people values are from Nomis[2].

Table 1.2 shows that in 2024/25 London's Climate Tech sector Companies contributed a slightly smaller proportion to the number of Total Enterprises than the national average, with 4.58% for London compared with 4.65% for the UK.

Within London's fifteen Level 2 sub-sectors, three contributed a larger proportion of Companies than the national average: Climate Tech, Data Analytics & Fintech with 1.51% compared with 0.53% for the UK; Remanufacture with 0.07% compared with 0.06% for the UK; and Decarbonisation of Industry & Manufacturing with 0.06% compared with 0.05% for the UK. The other twelve sub-sectors contributed a smaller proportion to London's Business Base than the national average.

Table 1.3: London and UK Economically Active People Compared to Climate Tech Level 2 Employment 2024/25

Level 2 Sub-sector	London's Climate Tech Employees 2024/25	Climate Tech as a % of London's Total Economically Active People	Sub-sector Proportion	UK Climate Tech Employees 2024/25	Climate Tech as a % of UK Total Economically Active People	Sub-sector Proportion
Renewable Energy	115,828	2.31%	26.8%	692,663	1.99%	32.8%

[2] https://www.nomisweb.co.uk/reports/lmp/gor/2013265927/subreports/nrhi_time_series/report.aspx?

Climate Data, Analytics & Fintech	111,365	2.22%	25.7%	185,857	0.53%	8.8%
Low Carbon	77,554	1.55%	17.9%	510,748	1.46%	24.2%
Remanufacture	46,278	0.92%	10.7%	192,490	0.55%	9.1%
Waste & Resource Recovery	27,258	0.54%	6.3%	164,462	0.47%	7.8%
Sustainable Mobility & Transport	20,527	0.41%	4.7%	171,624	0.49%	8.1%
Sustainable Water Technologies	14,937	0.30%	3.5%	84,837	0.24%	4.0%
Decarbonisation of Industry & Manufacturing	5,709	0.11%	1.3%	23,931	0.07%	1.1%
Pollution Prevention & Environmental Monitoring	4,305	0.09%	1.0%	39,133	0.11%	1.9%
Energy Storage & Grid Management	3,872	0.08%	0.9%	26,117	0.07%	1.2%
District Heat Networks	1,973	0.04%	0.5%	10,107	0.03%	0.5%
Green Materials & Chemistry	1,394	0.03%	0.3%	4,680	0.01%	0.2%
Sustainable Agriculture & Food Tech	997	0.02%	0.2%	3,347	0.01%	0.2%
Climate-resilient Infrastructure	502	0.01%	0.1%	2,649	0.01%	0.1%
Climate Adaptation & Resilience	378	0.01%	0.1%	1,336	0.00%	0.1%
Total	**432,877**	**8.62%**	**100.0%**	**2,113,979**	**6.06%**	**100.0%**

The total number of economically active people in London in 2024 was 5,019,000 and the total number of economically active people in the UK in 2024 was 34,872,000. London's economically active people and UK's economically active people values are from Nomis[3].

Table 1.3 shows that in 2024/25 London's Climate Tech sector Employees contributed a larger proportion to the number of Economically Active People than the national average, with 8.62% for London compared with 6.06% for the UK.

[3] https://www.nomisweb.co.uk/reports/lmp/gor/2013265927/subreports/nrhi_time_series/report.aspx?

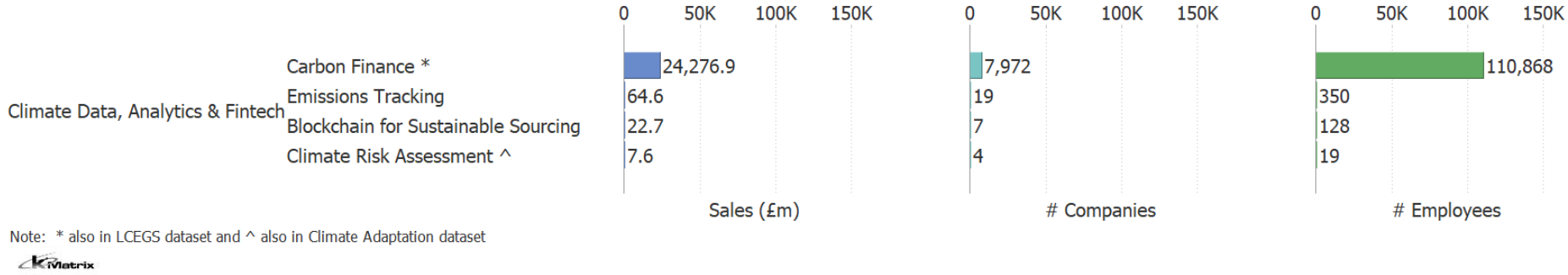
Within London's fifteen Level 2 sub-sectors, eleven contributed a larger proportion of Employees than the national average, with four of these contributing more than 0.1% percentage points more: Renewable Energy with 2.31% compared with 1.99% for the UK; Climate Data, Analytics & Fintech with 2.22% compared with 0.53% for the UK; Remanufacture with 0.92% compared with 0.55% for the UK; and District Heat Networks with 0.39% compared with 0.29% for the UK.

1.2.3 Climate Tech Level 3 Sub-sectors

In this section we look at the Climate Tech Level 2 sub-sectors split into their Level 3 sub-sectors. For reference, sub-sectors marked with " are from the Circular Economy dataset (Section 2); sub-sectors marked with ' are from the Green & Blue Infrastructure dataset (Section 3); sub-sectors marked with ^ are from the Climate Adaptation dataset (Section 4) and * are from LCEGS (Section 5). Those sub-sectors which have the same sub-sector heading as LCEGS but do not have an * mark, have been altered from the LCEGS definition, or have been split between new Level 2 sub-sector definitions. Appendix 1 includes definitions for sub-sectors within each section.

Climate Data, Analytics & Fintech has a separate graph and scale to successive graphs in this section, which then all use the same scale, to enable size comparison between graphs for all other sub-sectors. Although this compromise could suggest Climate Data, Analytics & Fintech are smaller than they appear compared with other sub-sectors, if all graphs used the same scale, it would be difficult to compare smaller sub-sectors.

Figure 1.11: Sales in £m, Companies and Employees 2024/25 (Level 3) – sub-sector group 1



Climate Data, Analytics & Fintech is further sub-divided into four sub-sectors, of which Carbon Finance accounts for 99% of sales within the sub-sector (99% in 2022/23), 99% of companies (99% in 2022/23), and 99% employees (99% in 2022/23) (Figure 1.11).

Carbon Finance grew between 2022/23 and 2024/25: sales from £19.1bn to £24.3bn; companies from 6,281 to 7,972; and employees from 85,942 to 110,868

Figure 1.12: Sales in £m, Companies and Employees 2024/25 (Level 3) – sub-sector group 2



Renewable Energy is further sub-divided into eight sub-sectors, of which five account for 99% of sales (98% in 2022/23), 98% of Companies (98% in 2022/23), and 98% of Employees (98% in 2022/23), (Figure 1.12). These five are made up of Wind 35% of sales (34% in 2022/23), Geothermal 27% (28% in 2022/23), Solar 18% (18% in 2022/23), Biomass 12% (12% in 2022/23), and Air Source Heat Pumps 6% (6% in 2022/23).

Each of these five sub-sectors grew between 2022/23 and 2024/25: Wind sales from £5.3bn to £6.5bn; companies from 1,842 to 2,264; and employees from 31,147 to 38,263; Geothermal sales from £4.3bn to £5.0bn; companies from 1,911 to 2,242; and employees from 23,951 to 28,140; Solar sales from £2.8bn to £3.4bn; companies from 823 to 992; and employees from 19,239 to 23,193; Biomass sales from £1.9bn to £2.2bn; companies from 757 to 878; and employees from 14,835 to 17,204; and Air Source Heat Pumps sales from £941m to £1.1bn; companies from 410 to 494; and employees from 5,567 to 6,711.

Low Carbon is further sub-divided into four sub-sectors, of which two account for 87% of sales (87% in 2022/23), 86% of companies (85% in 2022/23), and 87% of employees (86% in 2022/23). These are Building Technologies 47% (46% in 2022/23), and Alternative Fuels 40% (40% in 2022/23).

Both of these sub-sectors grew between 2022/23 and 2024/25: Building Technologies sales from £3.8bn to £4.5bn; companies from 1,565 to 1,862; and employees from 26,350 to 31,365; and Alternative Fuels sales from £3.3bn to £3.9bn; companies from 1,345 to 1,576; and employees from 30,595 to 35,935.

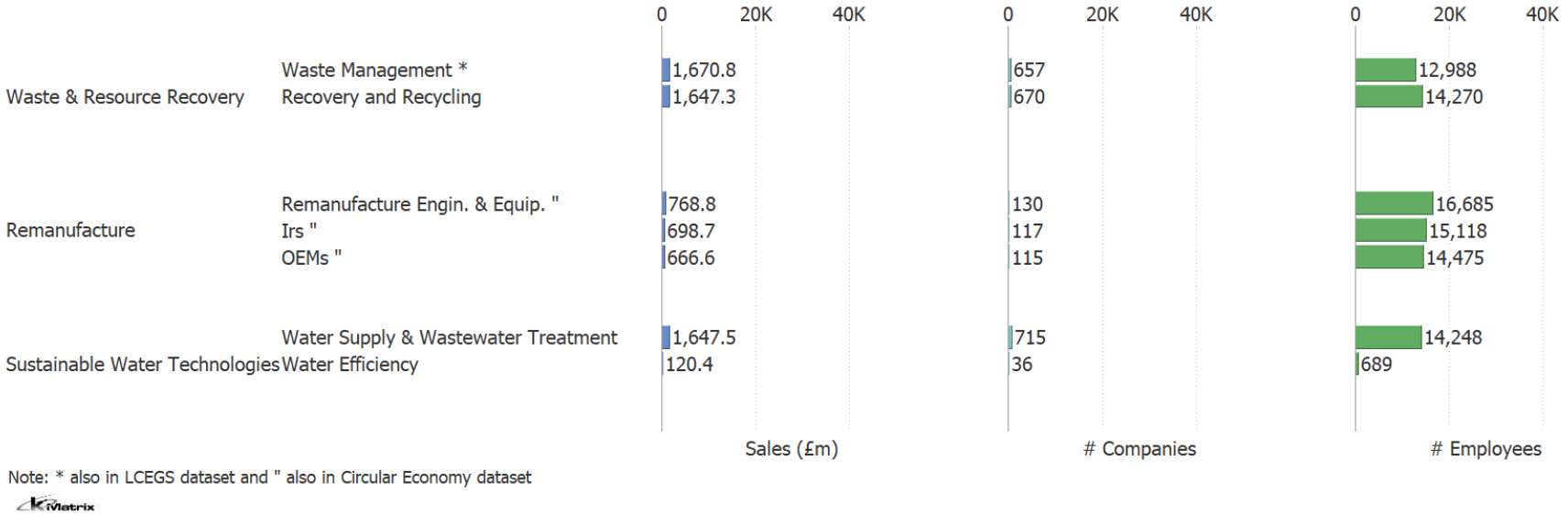
Sustainable Mobility & Transport is further sub-divided into four sub-sectors, of which, Alternative Fuel Vehicle accounts for 89% of sales (87% in 2022/23), 90% of companies (89% in 2022/23), and 88% of employees (87% in 2022/23).

Alternative Fuel Vehicle grew between 2022/23 and 2024/25: sales from £3.2bn to £3.9bn; companies from 1,104 to 1,345; and employees from 15,135 to 18,103.

Within Alternative Fuel Vehicle, there are three Level 4 sub-sectors, of which, Alternative Fuels (main stream) for Vehicles Only (includes production, distribution and supply of LPG, hydrogen, natural gas and synthetic fuels) accounts for 50% of sales (53% in 2022/23); and Electric Vehicles account for 35% of sales (34% in 2022/23).

Both of these sub-sectors grew between 2022/23 and 2024/25: Alternative Fuels (main stream) for Vehicles Only sales from £1.7bn to £2.0bn; companies from 657 to 765; and employees from 11,473 to 13,350; and Electric Vehicles sales from £1.1bn to £1.4bn; companies from 356 to 458; and employees from 2,458 to 3,151.

Figure 1.13: Sales in £m, Companies and Employees 2024/25 (Level 3) – sub-sector group 3



Waste and Resource Recovery is further sub-divided into two sub-sectors, Waste Management accounts for 50% of sales (51% in 2022/23), 50% of companies (50% in 2022/23), and 48% of employees (47% in 2022/23), and Recovery and Recycling accounts for 50% of sales (49% in 2022/23), 50% of companies (50% in 2022/23), and 52% of employees (53% in 2022/23); (Figure 1.13).

Both of these sub-sectors grew between 2022/23 and 2024/25: Waste Management sales from £1.5bn to £1.7bn; companies from 604 to 657; and employees from 11,939 to 12,988; and Recovery and Recycling sales from £1.5bn to £1.6bn; companies from 610 to 670; and employees from 13,323 to 14,270.

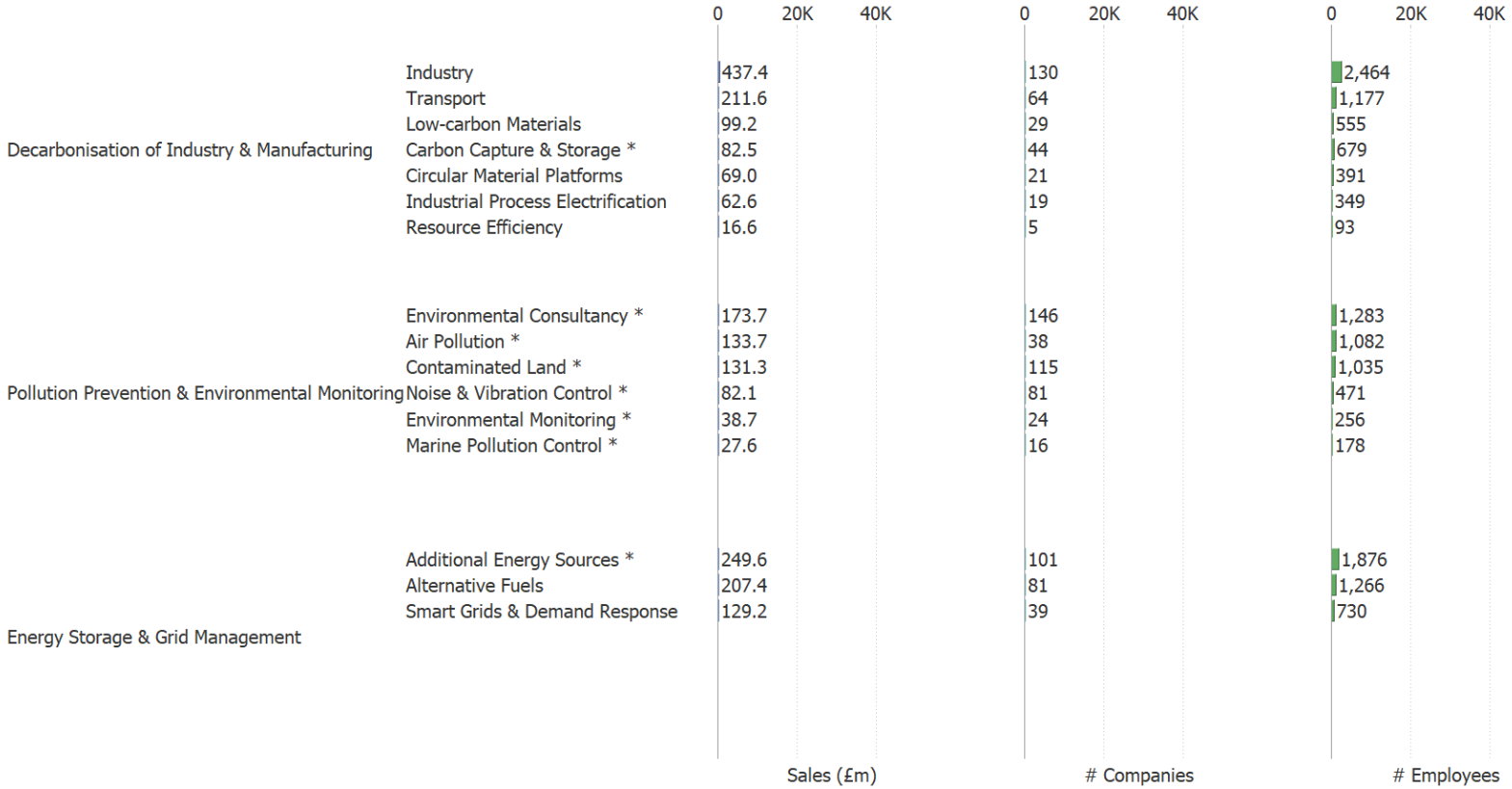
Remanufacture is further sub-divided into three sub-sectors, each holding between 31-36% of sales, companies, and employees in 2024/25 (and in 2022/23).

All three of these sub-sectors grew between 2022/23 and 2024/25: Remanufacture Engineering and Equipment sales from £737m to £769m; companies from 124 to 130; and employees from 16,673 to 16,685; Remanufacture by Independent Remanufacturers (IRs) sales from £670m to £699m; and companies from 112 to 117; although employment fell from 15,185 to 15,118; Remanufacture by Original Equipment Manufacturers/remanufacturers (OEMs) sales from £640m to £667m; companies from 110 to 115; and employees from 14,467 to 14,475.

Sustainable Water Technologies is further sub-divided into two sub-sectors, Water Supply and Wastewater Treatment accounts for 93% of sales (93% in 2022/23), 95% of companies (95% in 2022/23), and 95% of employees (95% in 2022/23); and Water Efficiency accounts for 7% of sales (7% in 2022/23), 5% of companies (5% in 2022/23), and 5% of employees (5% in 2022/23)

Both of these sub-sectors grew between 2022/23 and 2024/25: Water Supply and Wastewater Treatment sales from £1.56bn to £1.65bn; companies from 671 to 715; and employees from 13,206 to 14,248; and Water Efficiency sales from £116m to £120m; companies from 35 to 36; and employees from 687 to 689.

Figure 1.14: Sales in £m, Companies and Employees 2024/25 (Level 3) – sub-sector group 4



Note: * also in LCEGS dataset

Decarbonisation of Industry & Manufacturing is further sub-divided into seven sub-sectors, of which two account for 66% of sales (67% in 2022/23), 62% of companies (63% in 2022/23), and 64% of employees (64% in 2022/23), (Figure 1.14). These are the Decarbonisation of Industry accounting for 45% of sales (45% in 2022/23), and Decarbonisation of Transport with 22% of sales (22% in 2022/23).

Both of these sub-sectors grew between 2022/23 and 2024/25: Decarbonisation of Industry sales from £420m to £437m; companies from 129 to 130; and employees from 2,454 to 2,464; and Decarbonisation of Transport sales from £203m to £212m; companies remained at 64; and employees from 1,173 to 1,177.

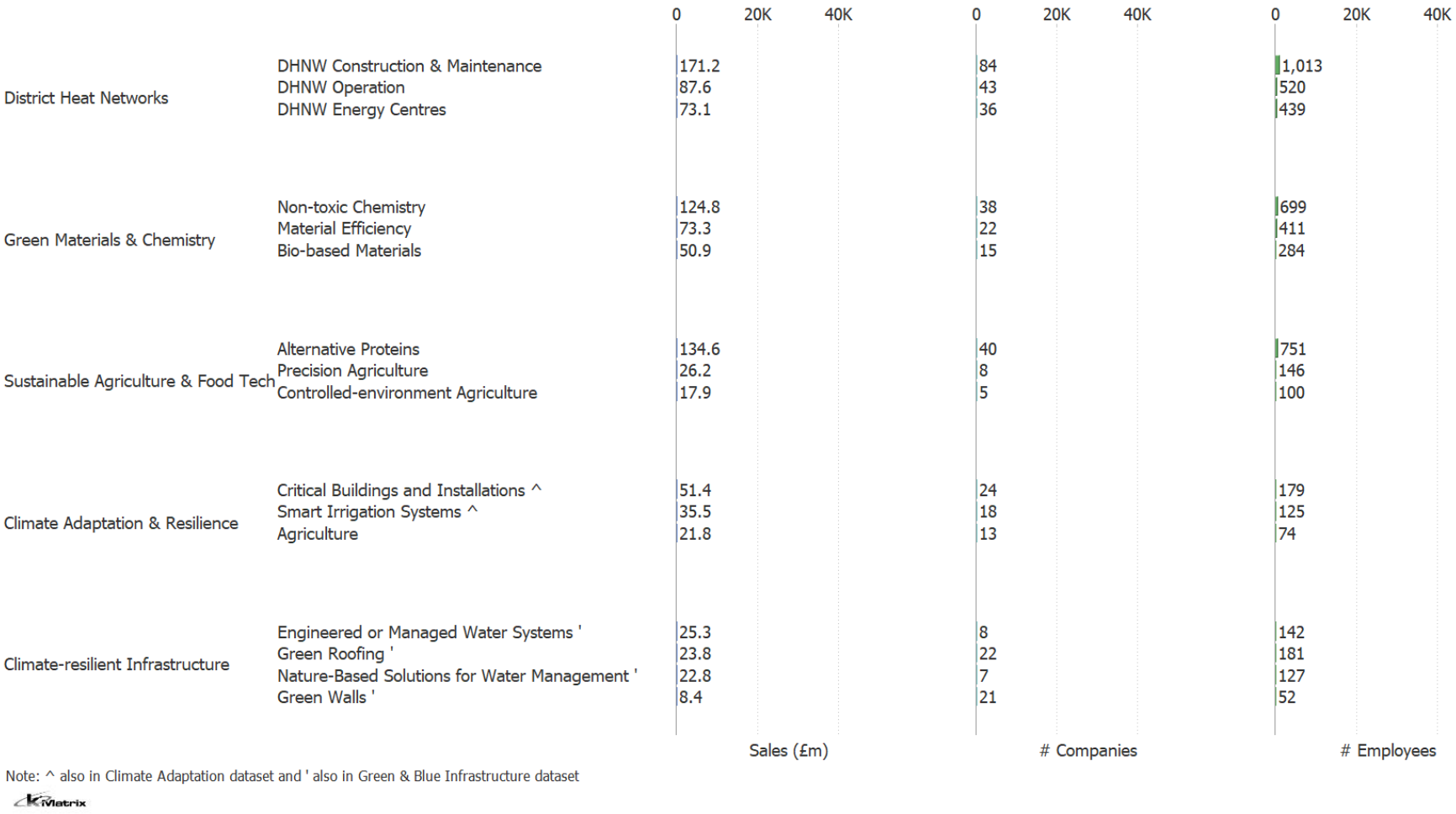
Pollution Prevention & Environmental Monitoring is further sub-divided into six sub-sectors, of which three account for 75% of sales (75% in 2022/23), 71% of companies (71% in 2022/23), and 79% of employees (79% in 2022/23). These are Environmental Consultancy accounting for 30% of sales (29% in 2022/23), Air Pollution 23% (23% in 2022/23), and Contaminated Land 22% (22% in 2022/23).

All of these sub-sectors grew between 2022/23 and 2024/25: Environmental Consultancy sales from £157m to £174m; companies from 132 to 146; and employees from 1,162 to 1,283; Air Pollution sales from £124m to £134m; companies from 36 to 38; and employees from 1,006 to 1,082; and Contaminated Land sales from £120m to £131m; companies from 105 to 115; and employees from 943 to 1,035.

Energy Storage & Grid Management is further sub-divided into three sub-sectors, of which two account for 78% of sales (76% in 2022/23), 83% of companies (80% in 2022/23), and 81% of employees (79% in 2022/23). These are Additional Energy Sources accounting for 43% of sales (42% in 2022/23), and Alternative Fuels accounting for 35% of sales (34% in 2022/23).

Both of these sub-sectors grew between 2022/23 and 2024/25: Additional Energy Sources sales from £221m to £250m; companies from 89 to 101; and employees from 1,661 to 1,876; and Alternative Fuels sales from £177m to £207m; companies from 69 to 81 and employees from 1,078 to 1,266.

Figure 1.15: Sales in £m, Companies and Employees 2024/25 (Level 3) – sub-sector group 5



Note: ^ also in Climate Adaptation dataset and ' also in Green & Blue Infrastructure dataset

District Heat Networks is further sub-divided into three sub-sectors, of which, Construction & Maintenance accounts for 52% of sales (52% in 2022/23), 52% of companies (52% in 2022/23), and 51% of employees (52% in 2022/23). (Figure 1.15).

Construction & Maintenance grew between 2022/23 and 2024/25: sales from £135m to £171m; companies from 66 to 84; and employees from 795 to 1,013.

Green Materials & Chemistry is further sub-divided into three sub-sectors, of which, Non-toxic Chemistry accounts for 50% of sales (50% in 2022/23), 50% of companies (50% in 2022/23), and 50% of employees (50% in 2022/23).

Non-toxic Chemistry grew between 2022/23 and 2024/25: sales from £120m to £125m; companies remained at 38; and employees grew from 696 to 699.

Sustainable Agriculture & Food Tech is further sub-divided into three sub-sectors, of which, Alternative Proteins accounts for 75% of sales (75% in 2022/23), 75% of companies (75% in 2022/23), and 75% of employees (75% in 2022/23).

Alternative Proteins grew between 2022/23 and 2024/25: sales from £130m to £135m; companies remained at 40; and employees grew from 748 to 751.

Climate Adaptation & Resilience is further sub-divided into three sub-sectors, of which, two account for 80% of sales (80% in 2022/23), 76% of companies (76% in 2022/23), and 80% of employees (80% in 2022/23). These are Critical Buildings & Installations accounting for 47% of sales (48% in 2022/23), and Smart Irrigation Systems accounting for 33% of sales (33% in 2022/23).

Both of these sub-sectors grew between 2022/23 and 2024/25: are Critical Buildings & Installations sales from £50m to £51m; companies from 23 to 24; and employees from 172 to 179; and Smart Irrigation Systems sales from £34m to £36m; companies from 17 to 18; and employees from 120 to 125.

Climate-resilient Infrastructure is further sub-divided into four sub-sectors, of which three account for 90% of sales (91% in 2022/23), 63% of companies (65% in 2022/23), and 90% of employees (91% in 2022/23). These are Engineered or Managed Water Systems accounting for 32% of sales (35% in 2022/23), Green Roofing with 30% of sales (25% in 2022/23); and Nature-Based Solutions for Water Management 28% (31% in 2022/23).

All of these sub-sectors grew between 2022/23 and 2024/25: Engineered or Managed Water Systems sales from £24m to £25m; companies remained at 8; and employees grew from 141 to 142; Green Roofing sales from £18m to £24m; companies from 17 to 22; and employees from 133 to 181; and Nature-Based Solutions for Water Management sales from £22m to £23m; companies remained at 7; and employees remained at 127.

1.2.4 London's Climate Tech Historic Growth

In Section 1.1 annual growth in London's Climate Tech sales, employment and companies was compared with growth in the UK's Climate Tech sector as a whole for 2022/23 to 2024/25. This section includes summaries of how sub-sector growth in London compares with the UK. A detailed table of Lonon's annual growth by sub-sector is available in the Companion Dataset.

While annual growth in the Climate Tech sector as a whole has varied between 8.4% and 9.9% for each of the three parameters, there is considerable variation in growth between the Level 3 sub-sectors. This reflects London's strengths and its share of these sub-sector markets, all of which are growing at different rates.

The higher growth rates for sub-sectors in London are a reflection of higher growth rates in the UK market and the opportunities that are being created by drivers of growth including policy, regulation and consumer choices. Most sub-sectors in London have growth rates within two percentage points of the UK growth rates, the four main exceptions of large sub-sectors where London sales growth was stronger than the UK for at least one year are shown in Table 1.4 and are:

- Geothermal, where the London sales growth rates were 8.7% between 2022/23 and 2023/24 and 8.8% between 2023/24 and 2024/25 and the UK growth rates were 6.1% between 2022/23 and 2023/24 and 6.5% between 2023/24 and 2024/25
- Alternative Fuels (Low Carbon), where the London sales growth rates were 8.6% between 2022/23 and 2023/24 and 8.0% between 2023/24 and 2024/25 and the UK growth rates were 6.6% between 2022/23 and 2023/24 and 7.1% between 2023/24 and 2024/25
- Alternative Fuel Vehicle, where the London sales growth rates were 9.0% between 2022/23 and 2023/24 and 13.1% between 2023/24 and 2024/25 and the UK growth rates were 8.0% between 2022/23 and 2023/24 and 9.7% between 2023/24 and 2024/25
- Air Source Heat Pumps, where the London sales growth rates were 9.5% between 2022/23 and 2023/24 and 10.7% between 2023/24 and 2024/25 and the UK growth rates were 8.3% between 2022/23 and 2023/24 and 8.4% between 2023/24 and 2024/25

Table 1.4: Sub-sectors where London's Climate Tech Sales growth was stronger than the UK for at least one year between 2022/23 to 2024/25

Level 3 sub-sector	London Sales Growth 2022/23 to 2023/24	UK Sales Growth 2022/23 to 2023/24	London Sales Growth 2023/24 to 2024/25	UK Sales Growth 2023/24 to 2024/25
Geothermal	8.7%	6.1%	8.8%	6.5%

Alternative Fuels (in Low Carbon Level 2)	8.6%	6.6%	8.0%	7.1%
Alternative Fuel Vehicle	9.0%	8.0%	13.1%	9.7%
Air Source Heat Pumps	9.5%	8.3%	10.7%	8.4%

The three main exceptions where London growth was weaker than the UK for at least one year are shown in Table 1.5 and are:

- Carbon Finance, where the London sales growth rates were 12.0% between 2022/23 and 2023/24 and 13.6% between 2023/24 and 2024/25 and the UK growth rates were 17.1% between 2022/23 and 2023/24 and 18.5% between 2023/24 and 2024/25
- Biomass, where the London sales growth rates were 8.1% between 2022/23 and 2023/24 and 7.2% between 2023/24 and 2024/25 and the UK growth rates were 11.6% between 2022/23 and 2023/24 and 12.8% between 2023/24 and 2024/25
- Decarbonisation of Industry, where the London sales growth rates were 1.5% between 2022/23 and 2023/24 and 2.7% between 2023/24 and 2024/25 and the UK growth rates were 1.4% between 2022/23 and 2023/24 and 5.2% between 2023/24 and 2024/25

Table 1.5: Sub-sectors where London's Climate Tech Sales growth was weaker than the UK for at least one year between 2022/23 to 2024/25

Level 3 sub-sector	London Sales Growth 2022/23 to 2023/24	UK Sales Growth 2022/23 to 2023/24	London Sales Growth 2023/24 to 2024/25	UK Sales Growth 2023/24 to 2024/25
Carbon Finance *	12.0%	17.1%	13.6%	18.5%
Biomass *	8.1%	11.6%	7.2%	12.8%
Industry	1.5%	1.4%	2.7%	5.2%

Note: *also in LCEGS dataset

Growth in London sub-sectors across the 3-year reporting period is generally within two percentage points of growth in the UK. The five exceptions of large sub-sectors where London growth is more than two percentage points stronger than the UK are shown in Table 1.6 and are:

- Geothermal, where the London sales growth rate was 17.4% between 2022/23 and 2024/25 and the UK growth rate was 12.9% between 2022/23 and 2024/25

- Alternative Fuels (Low Carbon), where the London sales growth rate was 17.2% between 2022/23 and 2024/25 and the UK growth rate was 14.2% between 2022/23 and 2024/25
- Alternative Fuel Vehicle, where the London sales growth rate was 23.3% between 2022/23 and 2024/25 and the UK growth rate was 18.5% between 2022/23 and 2024/25
- Air Source Heat Pumps, where the London sales growth rate was 21.2% between 2022/23 and 2024/25 and the UK growth rate was 17.4% between 2022/23 and 2024/25
- Nuclear Power, where the London sales growth rate was 11.2% between 2022/23 and 2024/25 and the UK growth rate was 8.1% between 2022/23 and 2024/25

Table 1.6: Sub-sectors where London's Climate Tech average Sales growth across the 3-year reporting period was stronger than the UK between 2022/23 to 2024/25

Level 2 sub-sector	London Sales Growth 2022/23 to 2024/25	UK Sales Growth 2022/23 to 2024/25
Geothermal	17.4%	12.9%
Alternative Fuels (Low Carbon)	17.2%	14.2%
Alternative Fuel Vehicle	23.3%	18.5%
Air Source Heat Pump	21.2%	17.4%
Nuclear Power *	11.1%	8.1%

Note: *also in LCEGS dataset

Three exceptions where London growth is more than two percentage points weaker than the UK are shown in Table 1.7 and are:

- Carbon Finance, where the London sales growth rate was 27.2% between 2022/23 and 2024/25 and the UK growth rate was 38.8% between 2022/23 and 2024/25
- Biomass, where the London sales growth rate was 15.9% between 2022/23 and 2024/25 and the UK growth rate was 25.8% between 2022/23 and 2024/25
- Industry, where the London sales growth rate was 4.2% between 2022/23 and 2024/25 and the UK growth rate was 6.6% between 2022/23 and 2024/25

Table 1.7: Sub-sectors where London's Climate Tech average Sales growth across the 3-year reporting period was weaker than the UK between 2022/23 to 2024/25

Level 2 sub-sector	London Sales Growth 2022/23 to 2024/25	UK Sales Growth 2022/23 to 2024/25
Carbon Finance *	27.2%	38.8%
Biomass *	15.9%	25.8%
Industry	4.2%	6.6%

Note: *also in LCEGS dataset

The highest levels of actual growth in London Climate Tech occurred in Green Roofing (Climate-resilient Infrastructure); Green Walls (Climate-resilient Infrastructure); DHNW Operation (District Heat Networks); DHNW Energy Centres (District Heat Networks); Carbon Finance (Climate Data, Analytics & Fintech); DHNW Construction & Maintenance (District Heat Networks); Alternative Fuel Vehicle (Sustainable Mobility & Transport); Wind (Renewable Energy); Air Source Heat Pumps (Renewable Energy); and Solar (Renewable Energy) between 2021/22 and 2023/24.

1.2.5 London's Climate Tech Strengths and Weaknesses

By overlaying the sales for each sub-sector as a proportion of the UK market, the impact of stronger or weaker sales growth can be examined more closely. Figure 1.16 below shows how London compares with the UK for the largest 20 Level 3 sub-sectors in terms of sales, with regards to size of market and growth across three-years 2022/23 to 2024/25.

The x-axis represents the London/UK sales proportionality factor, which was calculated for each sub-sector by dividing the London sales a percentage of the UK, by 21.3%. This proportionality factor demonstrates where London holds a larger or smaller share of the UK market than would be expected, where:

- 1 = 21.3% of the UK market
- >1 = larger than 21.3% share
- <1 = smaller than 21.3% share

The y-axis represents the growth rate of London's Level 3 sub-sectors compared with the UK. This was calculated by dividing the 3-year growth rate of London by the average UK growth rate. This growth rate factor demonstrates which sub-sectors have a stronger or slower growth rate than the UK, where:

- 1 = the UK growth rate
- >1 = stronger than the UK average growth

- <1 = weaker than UK growth

The graph is split into four quadrants along 1 on each axis, with sub-sectors in each demonstrating:

- Top right = larger market share than expected and stronger growth than the UK average
- Bottom Right = larger market share than expected, but weaker growth than the UK average
- Top left = smaller market share than expected, but stronger growth than the UK average
- Bottom left = smaller market share than expected and weaker growth than the UK average

The bubbles represent the largest 20 Level 3 sub-sectors and are sized by 2023/24 sales £m, illustrating the relative sizes of each sub-sector.

Figure 1.16: London/UK Sales proportionality factor vs. London/UK Growth factor of Level 2 Sub-sectors – Bubbles Sized by Sales £m

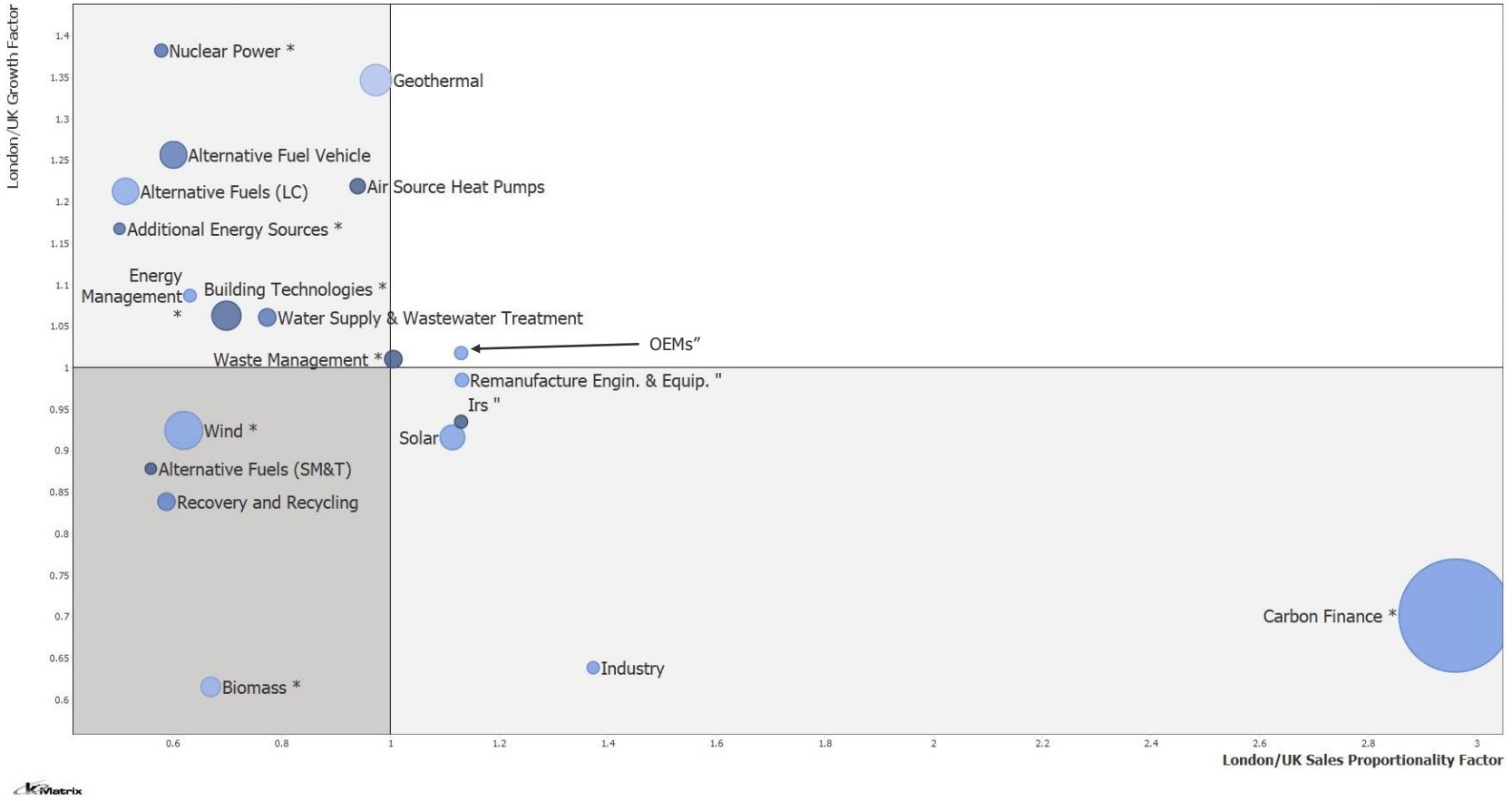
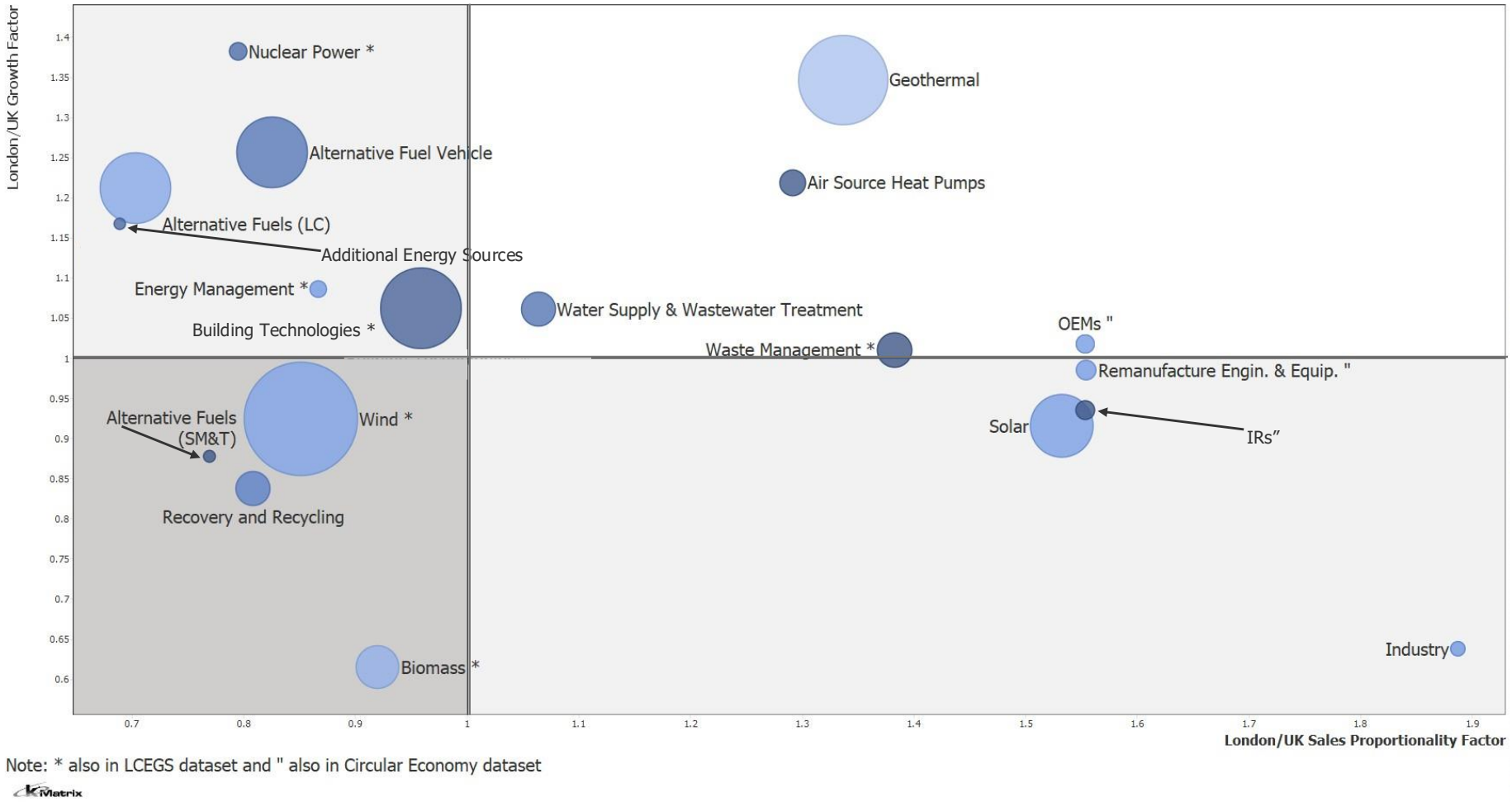


Figure 1.16 clearly illustrates the strong growth of Nuclear Power which grew by 11.1% compared with the UK growth of 8.1%; and of Geothermal, which grew by 14.4%, compared with 12.9% for the UK. Carbon Finance dominates the graph, with a larger proportion of the UK, with 36% of the UK Climate Tech market, compared with a Climate Tech average of 21.3%, but weaker growth of 27.2% compared with a UK average for Carbon Finance of 38.8%. Note: hard to read labels are identifiable in Figure 1.17.

Figure 1.17 illustrates the data excluding Carbon Finance from the proportionality factor to enable analysis of the other sectors.

Figure 1.17: London/UK Sales proportionality factor (Excl. Carbon Finance) vs London/UK Growth factor of Level 2 Sub-sectors, Bubbles Sized by Sales £m



Note: * also in LCEGS dataset and " also in Circular Economy dataset

When Carbon Finance is excluded from the analysis, the relative size of sub-sectors changes. Geothermal and Air Source Heat Pumps are now in the most desirable quadrant, with a larger proportion of the UK market than the sector average, and stronger

growth than the national average, with Geothermal growth in London of 17.4% vs. the UK of 12.9% and Air Source Heat Pump growth in London of 21.2% vs. the UK of 17.4%.

Alternative Fuel Vehicle has a smaller market share of the UK market than the sector average, but stronger growth (London 23.2% vs UK 18.5%), and Alternative Fuels in the Low Carbon Level 2 sub-sector also has a smaller market share of the UK market than the sector average, but strong growth (London 17.2% vs UK 14.2%).

Some of London's largest sub-sectors, whilst having a larger share of the UK market as would be expected, only experienced a growth rate that is similar or a little slower than the UK average. For example, Solar has a larger share (23.7% vs. the Carbon Finance excluded average of 15.5%) and is broadly in line with UK growth. Industry (Decarbonisation of Industry) is also larger than the sector average (29.2% vs. 15.5% average), but has much weaker growth than the national average of 4.2% vs. 6.6%.

1.2.6 London's Climate Tech Forecast Growth

Table 1.8 shows sales growth forecasts (annual percentage growth from the previous year) for 2025/26 through to 2029/30. The growth rates refer to the growth expected during the financial year listed. Forecast growth for the majority of sub-sectors is generally consistent with levels of historical growth, but as forecasts stretch out beyond 2029/30, they inevitably tend to be less robust. The growth rates would be applied to the year indicated, so for example, the 2025/26 growth rate indicates the expected growth between the 2024/25 and 2025/26 sales figures. A Level 3 table is available in available in the Companion Dataset.

Table 1.8: London's Climate Tech Forecast Sales (£m) and Growth 2025/26 to 2029/30

Level 2	Sales £m 2024/25	Forecast growth %	Forecast Sales £m 2025/26	Forecast growth %	Forecast Sales £m 2026/27	Forecast growth %	Forecast Sales £m 2027/28	Forecast growth %	Forecast Sales £m 2028/29	Forecast growth %	Forecast Sales £m 2029/30
Climate Adaptation & Resilience	108.6	5.8%	114.9	5.9%	121.7	8.9%	132.5	11.6%	147.8	16.1%	171.7
Climate Data, Analytics & Fintech	24,371.9	13.4%	27,640.0	13.6%	31,411.8	13.9%	35,773.5	14.1%	40,829.8	14.4%	46,703.4
Climate-resilient Infrastructure	80.2	9.6%	87.9	12.1%	98.5	14.2%	112.5	16.8%	131.4	19.7%	157.3
Decarbonisation of Industry & Manufacturing	978.9	6.3%	1,040.9	8.7%	1,131.9	10.1%	1,245.7	11.6%	1,389.9	13.4%	1,575.9

District Heat Networks	331.9	12.4%	372.9	14.0%	425.1	16.6%	495.6	19.7%	593.3	23.0%	729.5
Energy Storage & Grid Management	586.2	7.5%	629.9	8.4%	683.0	9.2%	745.6	10.0%	820.3	11.0%	910.4
Green Materials & Chemistry	249.0	6.5%	265.1	9.1%	289.1	10.5%	319.4	12.1%	358.0	14.0%	408.1
Low Carbon	9,580.9	9.0%	10,441.8	9.6%	11,442.0	10.2%	12,612.2	10.9%	13,990.8	11.7%	15,630.0
Pollution Prevention & Environmental Monitoring	587.1	5.1%	617.2	5.5%	651.1	5.9%	689.5	6.3%	733.1	6.8%	782.8
Remanufacture	2,134.0	6.5%	2,271.7	9.1%	2,478.0	10.5%	2,738.1	12.1%	3,070.4	14.0%	3,501.4
Renewable Energy	18,543.9	14.5%	21,224.0	16.2%	24,670.0	18.9%	29,323.7	22.2%	35,843.8	26.4%	45,301.0
Sustainable Agriculture & Food Tech	178.7	6.5%	190.3	9.1%	207.7	10.6%	229.6	12.2%	257.6	14.1%	293.9
Sustainable Mobility & Transport	4,397.1	9.3%	4,807.7	10.8%	5,326.3	12.9%	6,010.9	15.7%	6,954.2	19.3%	8,294.6
Sustainable Water Technologies	1,767.9	3.2%	1,824.5	3.6%	1,890.6	4.0%	1,965.9	4.4%	2,052.4	4.9%	2,152.4
Waste & Resource Recovery	3,318.1	5.3%	3,492.5	5.8%	3,693.7	6.2%	3,923.8	6.7%	4,188.5	7.3%	4,495.2
Total	**67,214.5**	**11.6%**	**75,021.4**	**12.7%**	**84,520.6**	**14.0%**	**96,318.5**	**15.6%**	**111,361.2**	**17.7%**	**131,107.6**

Growth is between one year and the next

Table 1.8 show year-on-year growth is expected for all Level 2 sub-sectors, with sector sales forecast to increase from £67.2bn in 2024/25 to £131.1bn in 2029/30.

Figure 1.18 shows the annual forecast growth for London's Climate Adaptation to 2025/26-2029/30 based upon the values in Table 1.8, which includes the forecast for Carbon Finance. The growth rates refer to the growth expected during the financial year listed.

Figure 1.18: London's Climate Tech Forecast Sales Growth 2024/25-2025/26 to 2028/29-2029/30 (including Carbon Finance)

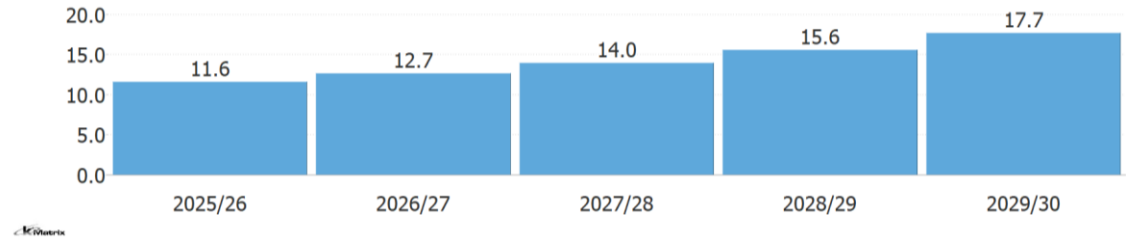
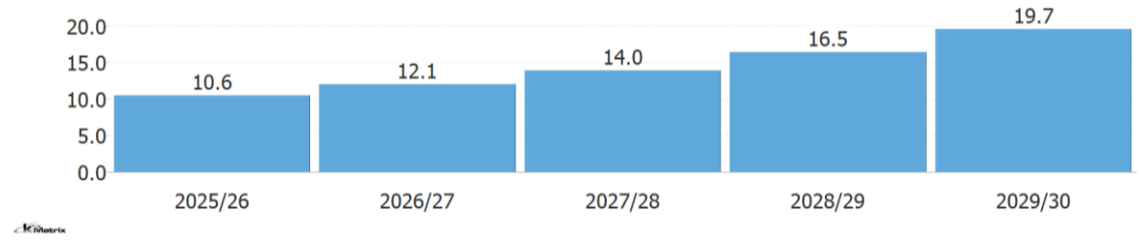


Figure 1.19 shows forecast growth for London's Climate Tech if Carbon Finance is excluded from the predictions.

Figure 1.19: London's Climate Tech Forecast Sales Growth 2024/25-2025/26 to 2028/29-2029/30 (excluding Carbon Finance)



Figures 1.18 and 1.19 illustrate that when removing Carbon Finance from the growth rates, with the new Climate Tech definition, growth is expected to be stronger than when Carbon Finance is included. This is the opposite of the LCEGS definition, where Carbon Finance dominates the market. In the Climate Tech definition, large sub-sectors such as Renewable Energy with very strong forecast growth rates have more of an impact than in the LCEGS dataset.

Table 1.20 indicates that the growth rates are expected to be very strong for Renewable Energy and District Heat Networks, and also strong for Climate Data, Analytics & Fintech, Climate-resilient Infrastructure, Climate Adaptation and Resilience and Sustainable Mobility & Transport.

Figure 120: UK's Climate Tech Forecast Sales Growth 2024/25-2025/26 to 2028/29-2029/30

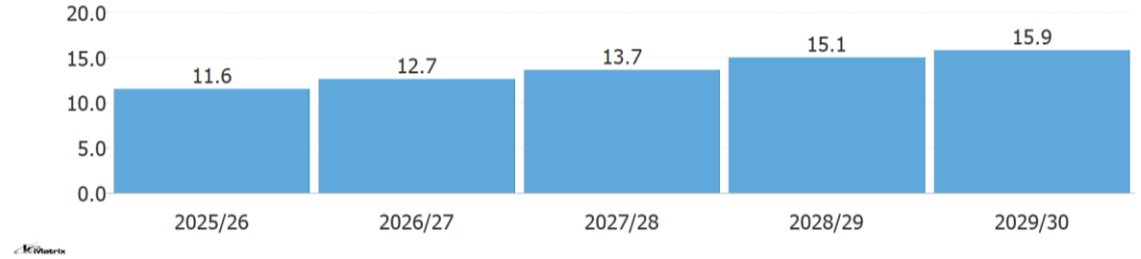


Figure 1.20 shows the annual growth forecast for the UK's Climate Tech from 2025/26-2029/30 and illustrates that the forecast growth for the UK is expected to be similar to London for 2025/26 and 2026/27, and then slower than for London from 2027/28 through to the 2029/30.

Figure 1.21: London's and UK's Climate Tech year-on-year Sales Growth 2019/20-2021/22 to 2023/24-2024/25 and Forecast Sales Growth 2024/25-2025/26 to 2028/29-2029/30

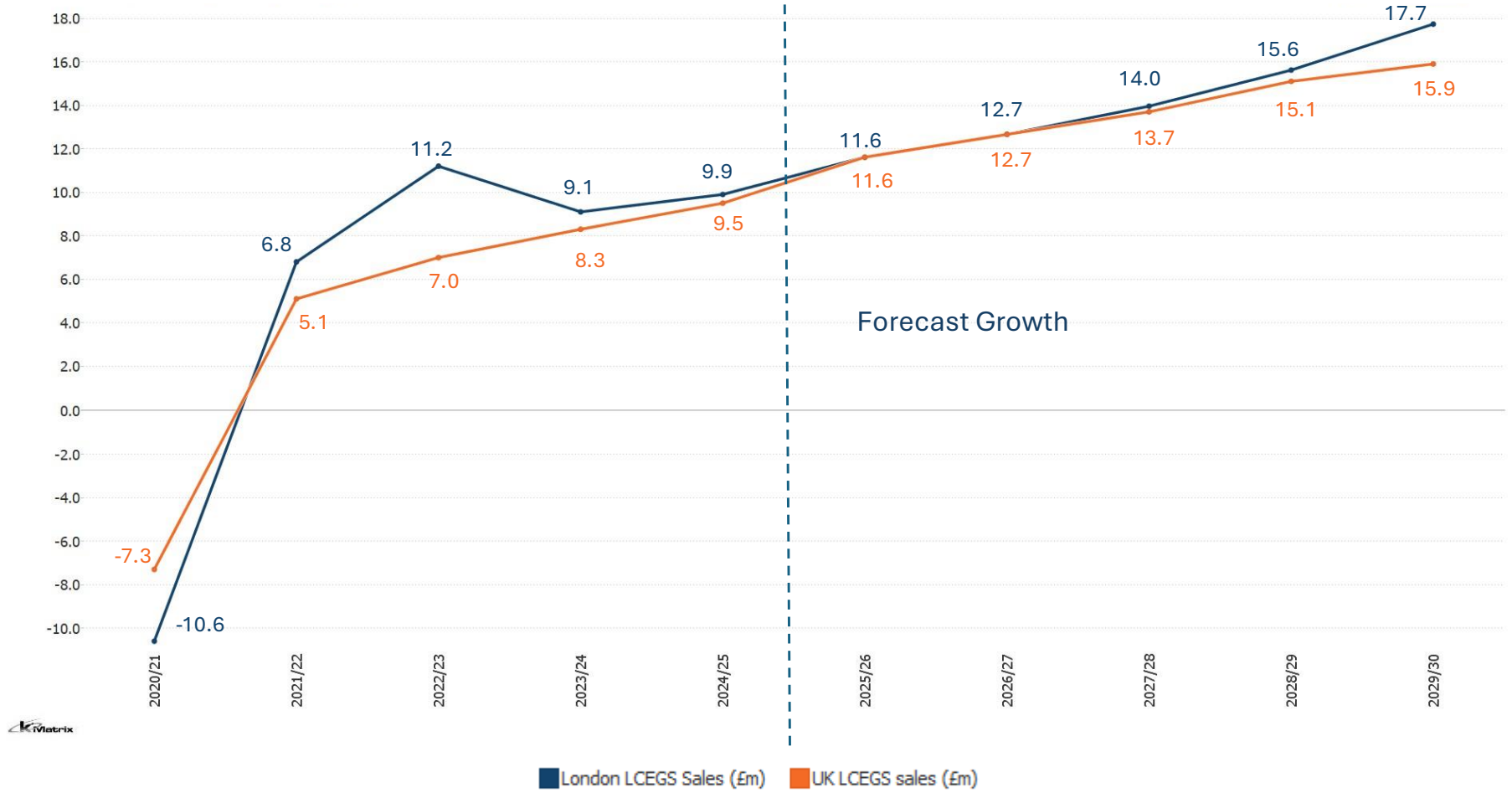
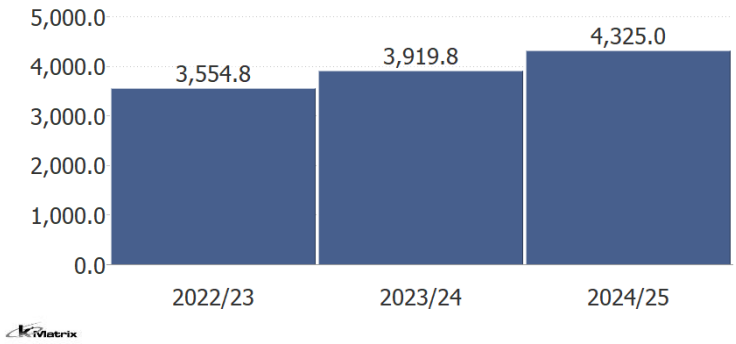


Figure 1.21 shows the timeline for year-on-year sales growth for the UK and London Sales for Climate Tech from 2020/21 to 2023/24-2024/25, combined with forecast growth to 2028/29-2029/30. London had a larger contraction in 2020/21 than the UK average due to the pandemic. London is expected to be similar to the UK for 2025/26 and 2026/27, but to have stronger growth than the UK average from 2026/27 to 2029/30.

1.2.7 London's Climate Tech Exports

This section of the report addresses London's Climate Tech Exports over the past two years when compared with UK totals and then identifies leading Climate Tech export products and services.

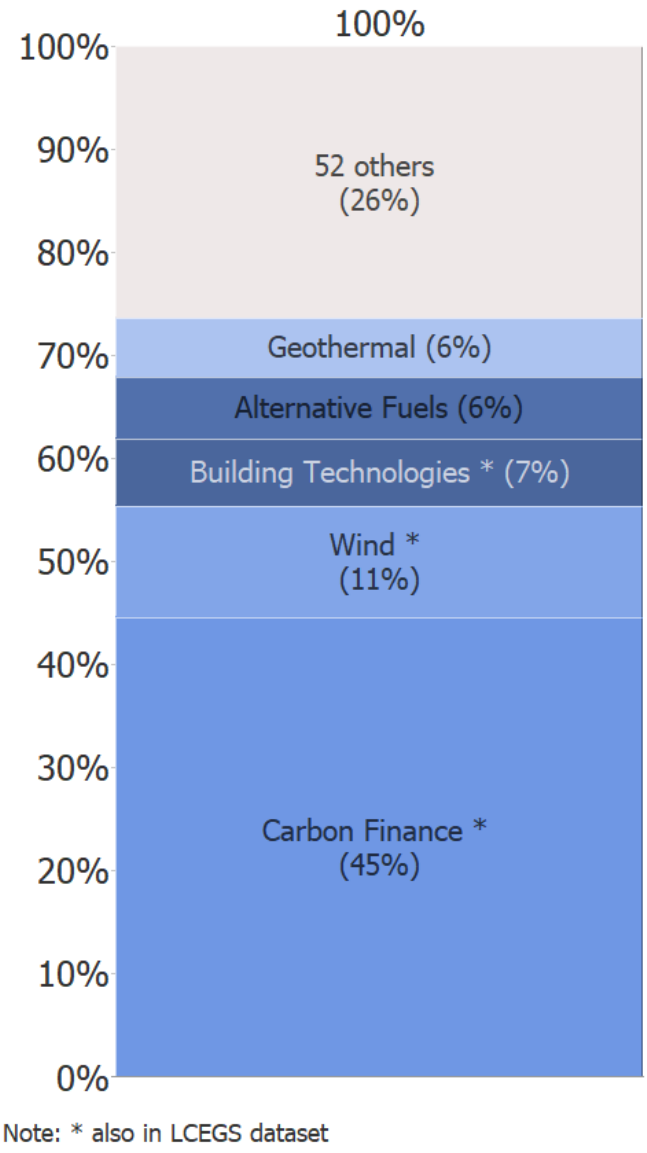
Figure 1.22: London's Climate Tech Exports (£m) 2022/23 to 2024/25



The value of London's Climate Tech Exports was £4.3bn in 2024/25, up from £3.6bn in 2022/23.

Growth was 10.3% from 2022/23 to 2023/24 and 10.3% from 2023/24 to 2024/25. This is compared to UK growth of approximately 10.0% and 7.2%, respectively.

Figure 1.23: London's Exports (%) by Sub-Sector 2024/25



Note: * also in LCEGS dataset

London represented 22% of all UK Climate Tech exports in 2024/25 (21% in 2023/24. It is slightly higher than London's 21% of overall UK Sales for that year.

Figure 1.23 shows the proportion of London Climate Tech exports by Level 3 sub-sector for 2024/25, with Carbon Finance 45% (43% in 2022/23); Wind 11%; Building Technologies 7%; Alternative Fuels 6%; and Geothermal 8% being the leading sub-sectors and accounting for 74% of all London Climate Tech exports (72% in 2022/23).

Figure 1.23 illustrates how Carbon Finance exports are significant at 45%, even within the definition of Climate Tech, which is much broader than LCEGS, where Carbon Finance accounts for 46% of exports.

The continued increase in exports in Carbon Finance is due to a significant increase in the number of financial institutions that are dealing with Carbon Finance in export markets, with further increases in the consulting arena.

In Table 1.9 London's Climate Tech exports are shown by sub-sector for each of the three years of the report and have been expressed as a percentage of that sub-sector's overall Sales

Table 1.9: London's Climate Tech Exports as a % of Sales 2022/23 to 2024/25

		2022/23			2023/24			2024/25		
Level 2	**Level 3**	**Sales £m**	**Exports £m**	**Exports as a % of Sales**	**Sales £m**	**Exports £m**	**Exports as a % of Sales**	**Sales £m**	**Exports £m**	**Exports as a % of Sales**
Climate Adaptation & Resilience	Agriculture	20.8	1.5	7.4%	21.3	1.6	7.4%	21.8	1.6	7.4%
	Critical Buildings and Installations ^	49.9	2.7	5.4%	50.7	2.8	5.4%	51.4	2.8	5.4%
	Smart Irrigation Systems	34.2	1.1	3.3%	34.8	1.1	3.3%	35.5	1.2	3.3%
Climate Data, Analytics & Fintech	Blockchain for Sustainable Sourcing	21.8	1.8	8.3%	22.2	1.8	8.3%	22.7	1.9	8.3%
	Carbon Finance *	19,079.8	1,523.1	8.0%	21,361.3	1,708.4	8.0%	24,276.9	1,927.0	7.9%
	Climate Risk Assessment ^	7.4	0.5	7.3%	7.5	0.5	7.3%	7.6	0.6	7.3%
	Emissions Tracking	62.5	2.5	4.1%	63.7	2.7	4.2%	64.6	2.8	4.3%
Climate-resilient Infrastructure	Engineered or Managed Water Systems '	24.2	1.2	5.0%	24.6	1.2	5.0%	25.3	1.3	5.1%
	Green Roofing '	17.5	0.4	2.1%	19.6	0.4	2.1%	23.8	0.5	2.1%
	Green Walls '	6.5	0.4	5.5%	7.1	0.4	5.5%	8.4	0.5	5.6%
	Nature-Based Solutions for Water Management '	21.9	0.5	2.4%	22.2	0.5	2.5%	22.8	0.6	2.5%
Decarbonisation of Industry & Manufacturing	Carbon Capture & Storage *	74.7	4.3	5.7%	78.6	4.5	5.7%	82.5	4.7	5.7%
	Circular Material Platforms	66.2	1.1	1.7%	67.2	1.1	1.7%	69.0	1.2	1.8%
	Industrial Process Electrification	60.1	2.7	4.5%	61.0	2.7	4.5%	62.6	2.8	4.5%
	Industry	419.6	15.0	3.6%	426.0	15.2	3.6%	437.4	16.3	3.7%
	Low-carbon Materials	95.1	7.7	8.1%	96.6	7.8	8.1%	99.2	8.0	8.1%
	Resource Efficiency	15.9	0.5	3.0%	16.2	0.5	3.0%	16.6	0.5	3.0%

	Transport	203.1	13.1	6.4%	206.2	13.6	6.6%	211.6	13.9	6.6%
District Heat Networks	DHNW Construction & Maintenance	134.6	1.7	1.2%	145.2	1.8	1.2%	171.2	2.1	1.2%
	DHNW Energy Centres	57.1	0.7	1.2%	61.7	0.8	1.2%	73.1	0.9	1.2%
	DHNW Operation	68.0	0.8	1.2%	73.8	0.9	1.2%	87.6	1.1	1.2%
Energy Storage & Grid Management	Additional Energy Sources *	221.1	12.2	5.5%	235.4	13.0	5.5%	249.6	13.8	5.5%
	Alternative Fuels	176.5	11.3	6.4%	192.0	12.2	6.4%	207.4	13.2	6.4%
	Smart Grids & Demand Response	124.0	3.0	2.4%	125.9	3.1	2.4%	129.2	3.2	2.4%
Green Materials & Chemistry	Bio-based Materials	48.8	1.3	2.8%	49.6	1.4	2.8%	50.9	1.4	2.8%
	Material Efficiency	70.3	2.0	2.9%	71.4	2.1	2.9%	73.3	2.1	2.9%
	Non-toxic Chemistry	119.8	3.5	2.9%	121.6	3.6	2.9%	124.8	3.7	3.0%
Low Carbon	Alternative Fuels	3,306.4	202.2	6.1%	3,589.8	219.5	6.1%	3,876.2	236.9	6.1%
	Building Technologies *	3,775.7	240.7	6.4%	4,135.9	263.7	6.4%	4,494.1	286.6	6.4%
	Energy Management *	517.0	28.5	5.5%	545.4	30.1	5.5%	574.0	31.7	5.5%
	Nuclear Power *	572.8	32.8	5.7%	605.0	34.7	5.7%	636.6	36.5	5.7%
Pollution Prevention & Environmental Monitoring	Air Pollution *	124.3	6.3	5.1%	129.0	6.5	5.1%	133.7	6.8	5.1%
	Contaminated Land *	119.7	6.6	5.5%	125.5	6.9	5.5%	131.3	7.2	5.5%
	Environmental Consultancy *	157.2	8.8	5.6%	165.5	9.3	5.6%	173.7	9.7	5.6%
	Environmental Monitoring *	35.1	1.9	5.5%	36.9	2.0	5.5%	38.7	2.1	5.5%
	Marine Pollution Control *	24.9	1.4	5.5%	26.2	1.4	5.5%	27.6	1.5	5.5%
	Noise & Vibration Control *	74.3	4.5	6.1%	78.3	4.8	6.1%	82.1	5.0	6.1%
Remanufacture	IRs "	670.4	20.6	3.1%	680.7	20.9	3.1%	698.7	21.4	3.1%
	OEMs "	639.7	24.1	3.8%	649.6	24.5	3.8%	666.6	25.2	3.8%
	Remanufacture Engin. & Equip. "	737.4	11.0	1.5%	748.8	11.2	1.5%	768.8	11.5	1.5%
Renewable Energy	Air Source Heat Pumps	940.9	10.6	1.1%	1,029.9	10.8	1.0%	1,140.2	12.9	1.1%
	Biomass *	1,876.9	124.3	6.6%	2,029.5	134.4	6.6%	2,175.5	144.1	6.6%

	Geothermal	4,279.1	210.8	4.9%	4,651.2	229.9	4.9%	5,023.8	248.3	4.9%
	Hydroelectric *	135.4	7.4	5.5%	143.1	7.8	5.5%	150.6	8.3	5.5%
	Renewable Consultancy *	107.0	5.9	5.5%	111.7	6.2	5.5%	116.3	6.5	5.5%
	Solar	2,827.1	188.2	6.7%	3,116.9	207.5	6.7%	3,407.5	226.8	6.7%
	Wave & Tidal *	20.9	1.4	6.8%	22.8	1.6	6.8%	24.7	1.7	6.8%
	Wind *	5,294.1	378.6	7.2%	5,896.5	421.7	7.2%	6,505.3	465.1	7.1%
Sustainable Agriculture & Food Tech	Alternative Proteins	129.8	4.4	3.4%	132.3	4.7	3.6%	134.6	4.8	3.5%
	Controlled-environment Agriculture	17.1	0.7	4.0%	17.4	0.7	4.0%	17.9	0.7	4.0%
	Precision Agriculture	25.1	0.7	2.8%	25.5	0.7	2.8%	26.2	0.7	2.8%
Sustainable Mobility & Transport	Active Transport	123.4	7.8	6.3%	125.3	8.1	6.4%	128.7	8.5	6.6%
	Alternative Fuel Vehicle	3,163.4	178.7	5.6%	3,447.3	206.6	6.0%	3,897.3	238.1	6.1%
	Alternative Fuels	250.8	5.6	2.2%	258.5	6.0	2.3%	279.6	6.5	2.3%
	Low-carbon Shipping & Aviation	87.8	7.5	8.6%	89.2	7.7	8.6%	91.6	7.9	8.6%
Sustainable Water Technologies	Water Efficiency	115.5	8.2	7.1%	117.2	8.3	7.1%	120.4	8.5	7.1%
	Water Supply & Wastewater Treatment	1,561.6	76.4	4.9%	1,604.7	78.6	4.9%	1,647.5	80.7	4.9%
Waste & Resource Recovery	Recovery and Recycling	1,500.4	52.0	3.5%	1,572.9	54.4	3.5%	1,647.3	56.9	3.5%
	Waste Management *	1,535.5	79.5	5.2%	1,603.9	83.0	5.2%	1,670.8	86.4	5.2%
Total		**56,048.4**	**3,554.8**	**6.3%**	**61,175.7**	**3,919.9**	**6.4%**	**67,214.5**	**4,325.0**	**6.4%**

Note: *also in LCEGS dataset; “ also in Circular Economy dataset; ‘ also in G&BI dataset and ^ also in Climate Adaptation dataset

Table 1.9 shows the average for 2024/25 is 6.4%, with variability across sub-sectors such as the relatively low 1.5% for Remanufacture Engineering and Equipment, which contrasts with the higher 8.1% for Low Carbon Materials. This is a reflection of the wide variety of sub-sectors in the Climate Tech dataset.

1.3 London's Climate Tech Compared with the Rest of the UK's Regions

1.3.1 London's Climate Tech Compared with the UK

Figure 1.24: London and the UK 2024/25 Climate Tech Sales by Level 2

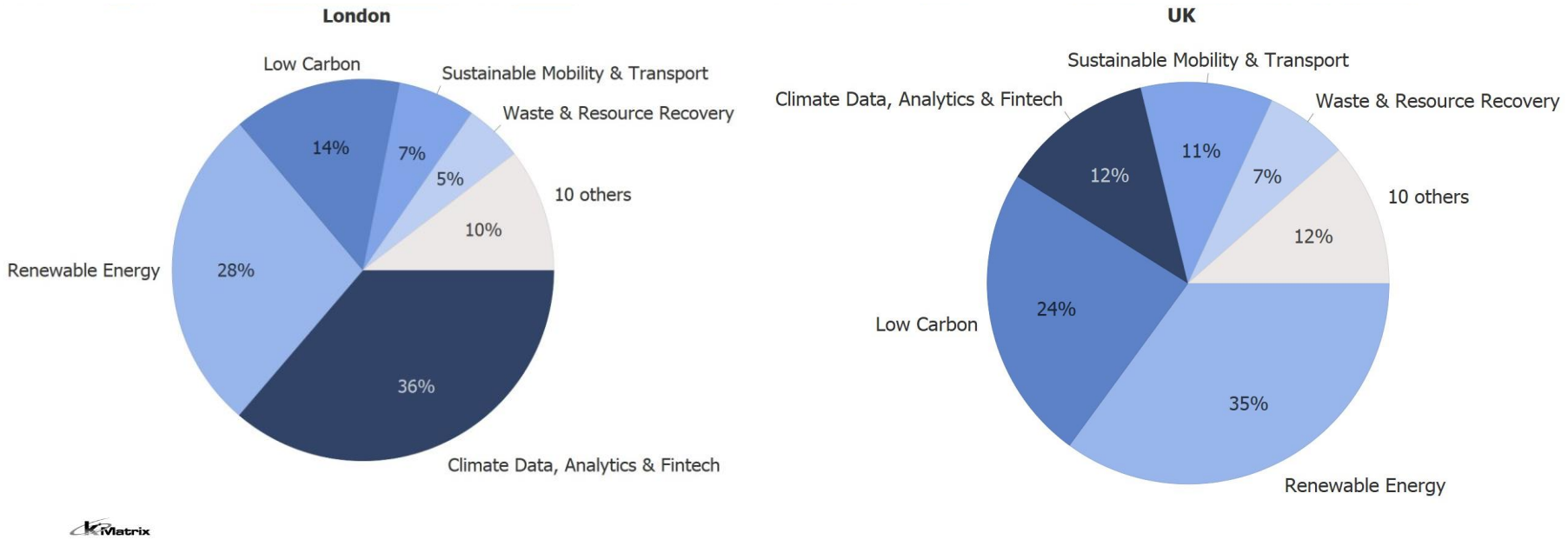


Figure 1.24 compares the profile of London and UK's Climate Tech activities at Level 2 for sales, and shows London's Climate Data, Analytics & Fintech market is more dominant than the wider UK with 36% compared with 12% for the UK.

Figure 1.25: London and the UK 2024/25 Climate Tech sub-sector Sales by Level 3

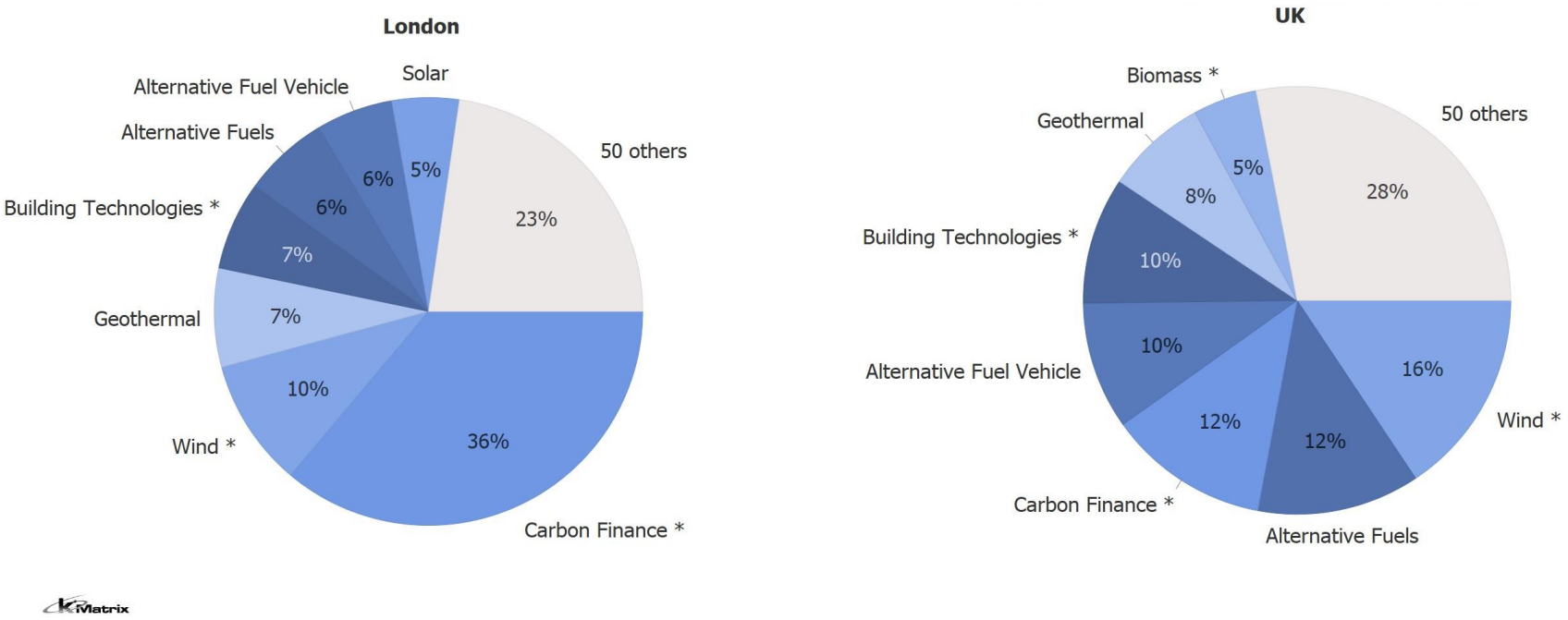


Figure 1.25 extends the analysis by comparing the profile of London and UK's Climate Tech activities at Level 3 for sales. There are significant differences between the two that gives London a distinctive Climate Tech profile compared to the overall UK profile.

These differences are mainly accounted for by the fact that Carbon Finance is London's largest Climate Tech sub-sector and a function of the financial services sector in the City and Canary Wharf and shows less activity outside of London. Other regional strengths include Building Technologies in the South East Region and Alternative Fuels and Alternative Fuel Vehicles in the East of England, West Midlands and the North West.

Figure 1.26: UK Regional Sales, Employment and Companies 2024/25 as % of UK

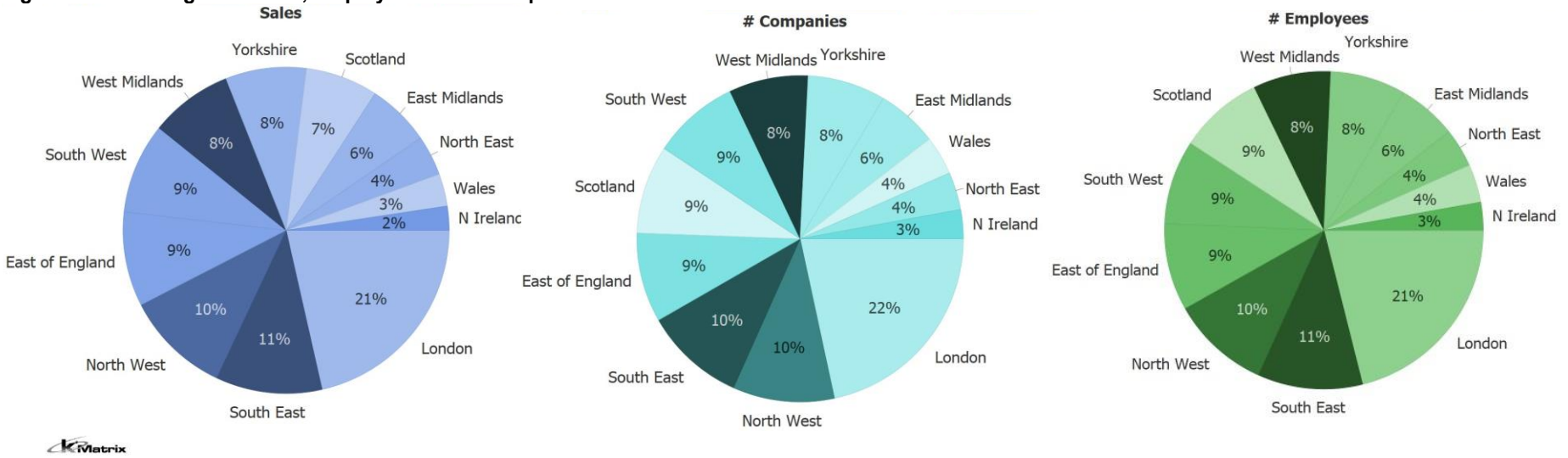


Figure 1.26 compares the "old" UK regions and the Devolved Administrations (for consistency with previous reporting) for sales, companies and employment.

London accounts for 21% of sales, 22% of companies and 21% of employment. If Carbon Finance is removed, this changes to 16% of sales, 16% of companies and 17% of employment.

The next largest regions for Climate Tech Sales are the South East, North West and East of England. These same regions are within the top four after London for both number of companies and number of employees.

Figure 1.27: Sales 2024/25 London as % of UK at Level 2

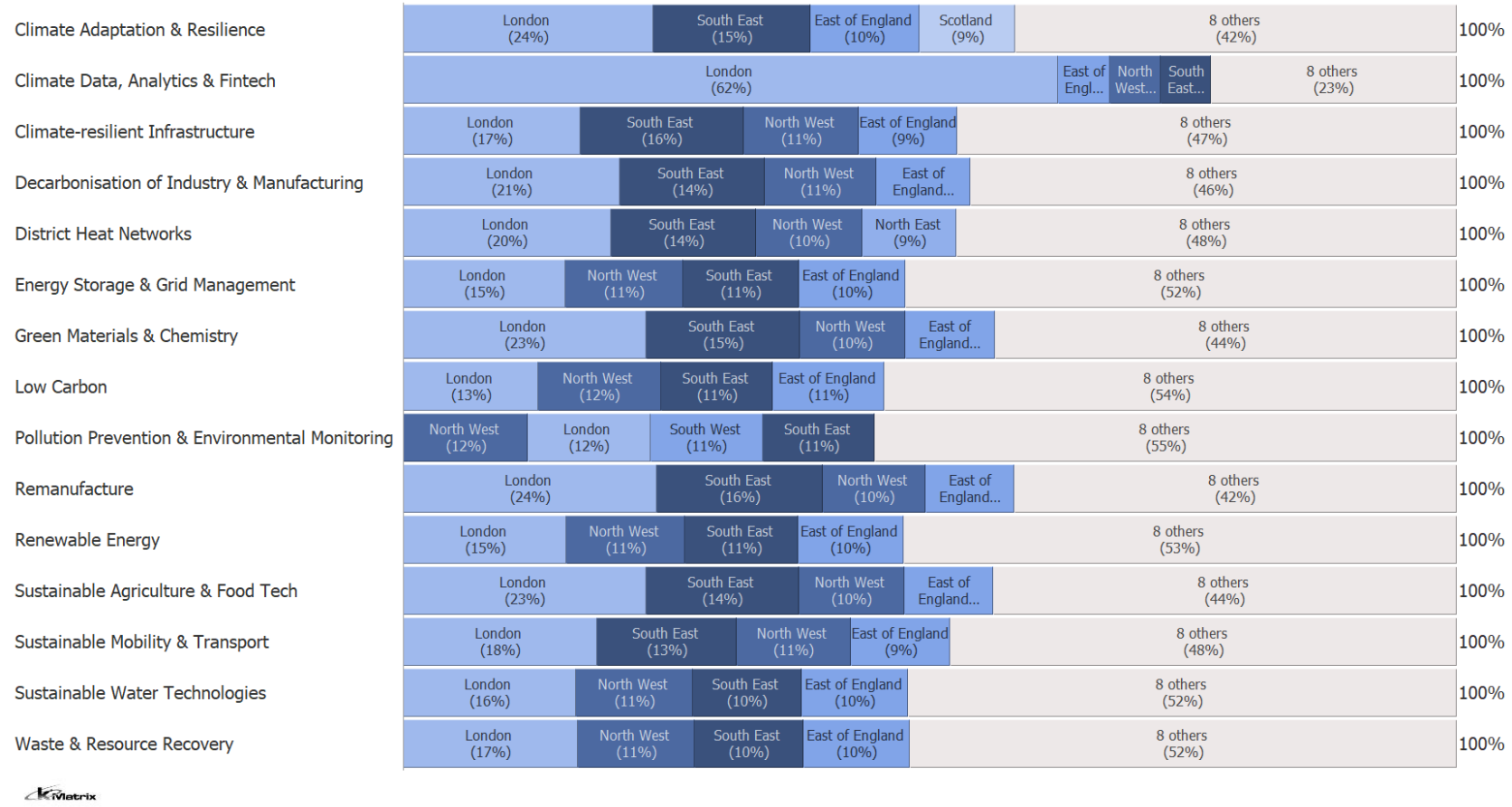


Figure 1.27 then compares the same regions again for 2024/25, but this time by all the Level 2 sub-sectors. This graphic shows how London's 22% of UK Sales is made up from a range of contributions, from Climate Data, Analytics & Fintech (which includes Carbon Finance) at 62% to Pollution Prevention & Environmental Monitoring at 12%. London is in the top four regions for all 16 Level 2 sub-sectors. The larger the percentage share of a sub-sector in a region, the higher the degree of supply chain localization in that sub-sector, in that region. The higher the degree of localization, the bigger the opportunity for the development of partnerships and regional cooperation.

London has the highest share of the market in 15 sub-sectors: Climate Data, Analytics & Fintech (62%); Climate Adaptation & Resilience (24%); Remanufacture (24%); Green Materials & Chemistry (23%); Sustainable Agriculture & Food Technology (23%); Decarbonisation of Industry & Manufacturing (21%); District Heat Networks (20%); Sustainable Mobility & Transport (18%); Climate-resilient Infrastructure (17%); Sustainable Water Technologies (16%); Energy Storage & Grid Management (15%); Renewable Energy (15%); Waste & Resource Recovery (15%); and Low Carbon (13%).

London has the second highest share of the market in the Pollution Prevention & Environmental Monitoring sub-sector (12%).

1.3.2 London's Impact on Regional Climate Tech Chains and Networks of Supply

In this section we analyse the impact of London's Climate Tech sector on other regions of the UK.

This is provided as a measure of the sales within the chains and networks of supply of a region, generated by the Climate Tech sector in London.

This analysis was performed by tracking sales of activities within London, through the chains and networks of supply, to determine point of origin and subsequent movement of constituent products or services.

Only value-added activities are included, from components to consultancy, R&D to assembly.

A limitation of the analysis is the activities measured are within the chain and network of supply and represent the traded activities within the sector, as such, untraded academic research is not counted.

The Sales numbers for sub-sectors within regions of the UK have been calculated through the same data triangulation process as other metrics within the study, but with additional locational data overlaid, specifically mapping the movement and trade of goods and services across the country.

This analysis included sources within the core source block, with additional accredited research sources augmenting the data triangulation process, and include:

- Data reported by companies
- Public sector sources
- Private sector sources
- Institutional sources
- Industrial and trade sources
- Academic Data sources (sector specific)
- Advertising and HR
- Financial, legal and investment
- Other (unpublished) sources

Table 1.10: 2023/24 Net benefit of London's Climate Tech market to the Rest of the UK, through chains and networks of supply, (£m)

L 2	Level 3	London Total Sales (£m) 2023/24	Supply Chain Outside of London (£m)	Supply Chain as % of London
Climate Adaptation & Resilience	Agriculture ^	21.8	6.8	31.4%
	Critical Buildings and Installations	51.4	14.2	27.6%
	Smart Irrigation Systems ^	35.5	13.1	37.0%
Climate Data, Analytics & Fintech	Blockchain for Sust. Sourcing	22.7	6.9	30.2%
	Carbon Finance *	24,276.9	8,676.8	35.7%
	Climate Risk Assessment ^	7.6	2.9	37.8%
	Emissions Tracking	64.6	25.6	39.6%
Climate-resilient Infrastructure	Engineered or Managed Water Systems '	25.3	10.7	42.2%
	Green Roofing '	23.8	7.8	32.8%
	Green Walls '	8.4	3.1	36.6%
	Nature-Based Solutions Water Management '	22.8	8.5	37.1%
Decarbonisation of Industry & Manufacturing	Carbon Capture & Storage *	82.5	30.5	36.9%
	Circular Material Platforms	69.0	25.4	36.9%
	Industrial Process Electrification	62.6	24.9	39.7%
	Industry	437.4	185.8	42.5%
	Low-carbon Materials	99.2	32.7	33.0%
	Resource Efficiency	16.6	6.4	38.3%
	Transport	211.6	76.0	35.9%
District Heat Networks	Construction & Maintenance	171.2	58.1	33.9%
	Energy Centres	73.1	26.5	36.3%

	Operation	87.6	30.3	34.6%
Energy Storage & Grid Management	Additional Energy Sources *	249.6	107.3	43.0%
	Alternative Fuels	207.4	84.0	40.5%
	Smart Grids & Demand Response	129.2	47.5	36.7%
Green Materials & Chemistry	Bio-based Materials	50.9	17.6	34.6%
	Material Efficiency	73.3	25.9	35.3%
	Non-toxic Chemistry	124.8	48.8	39.1%
Low Carbon	Alternative Fuels	3,876.2	1,174.6	30.3%
	Building Technologies *	4,494.1	1,635.8	36.4%
	Energy Management *	574.0	195.2	34.0%
	Nuclear Power *	636.6	155.2	24.4%
Pollution Prevention & Environmental Monitoring	Air Pollution *	133.7	44.4	33.2%
	Contaminated Land *	131.3	21.7	16.5%
	Environmental Consultancy *	173.7	71.4	41.1%
	Environmental Monitoring *	38.7	14.6	37.7%
	Marine Pollution Control *	27.6	4.2	15.1%
	Noise & Vibration Control *	82.1	28.3	34.5%
Remanufacture	IRs "	698.7	283.4	40.6%
	OEMs "	666.6	275.3	41.3%
	Remanufacture Engin. & Equip. "	768.8	280.3	36.5%
Renewable Energy	Air Source Heat Pumps	1,140.2	246.5	21.6%
	Biomass *	2,175.5	364.3	16.7%

	Geothermal	5,023.8	1,139.6	22.7%
	Hydroelectric *	150.6	27.5	18.2%
	Renewable Consultancy *	116.3	43.0	37.0%
	Solar	3,407.5	1,137.8	33.4%
	Wave & Tidal *	24.7	4.7	19.1%
	Wind *	6,505.3	1,065.4	16.4%
Sustainable Agriculture & Food Tech	Alternative Proteins	134.6	53.8	40.0%
	Controlled-environment Agriculture	17.9	6.3	35.4%
	Precision Agriculture	26.2	9.2	35.3%
Sustainable Mobility & Transport	Active Transport	128.7	46.9	36.5%
	Alternative Fuel Vehicle	3,897.3	1,377.1	35.3%
	Alternative Fuels	279.6	114.9	41.1%
	Low-carbon Shipping & Aviation	91.6	28.0	30.6%
Sustainable Water Technol	Water Efficiency	120.4	43.8	36.4%
	Water Supply & Wastewater Treatment	1,647.5	599.9	36.4%
Waste & Resource	Recovery and Recycling	1,647.3	589.1	35.8%
	Waste Management *	1,670.8	173.2	10.4%
Total		**67,214.4**	**20,859.3**	**31.0%**

Note: *also in LCEGS dataset; “ also in Circular Economy dataset; ‘ also in G&BI dataset and ^ also in Climate Adaptation dataset

Table 1.10 shows the net benefit of the Climate Tech sector in London, to UK chains and networks of supply outside of London.

London’s Climate Tech sector sales in 2023/24 were £67.2bn and generated a further £20.9bn, or an additional 31.0% in terms of sales within the chains and networks of supply across the UK, outside of London.

The largest sub-sectors in terms of sales in London do not necessarily generate the largest sales outside of London, e.g., Wind is the 2nd largest sub-sector in terms of sales in London, but 7th for the value of sales generated outside of London. Conversely, Building technologies is the 4th largest sub-sector in terms of sales in London, but 2nd for the value of sales generated outside of London.

Sub-sectors in London which generated the highest sales in the chains and networks of supply outside of London were Carbon Finance with £8.7bn; Building Technologies with £1.6bn; Alternative Fuel Vehicle with £1.4bn; Alternative Fuels (Low Carbon) with £1.2bn; Geothermal with £1.1bn; Solar with £1.1bn and Wind with £1.1bn.

London sub-sectors that generated the largest sales within the chains and network of supply outside of London, as a percentage of additional London sales were Additional Energy Sources with 43.0%; Industry (Decarbonisation of) with 42.5%; Engineered or Managed Water Systems with 42.2%; OEMs (Remanufacture by Original Equipment Manufacturer) with 41.3%; Environmental Consultancy 41.1%; Alterative Fuels (Sustainable Mobility & Transport) with 41.1%; and IRs (Remanufacture by Independent Remanufacturers) 40.6%.

The sub-sectors that created the least additional sales were Waste Management with 10.4%; Marine Pollution Control with 15.1% and Wind with 16.4%.

Figure 1.28: Net benefit of London's Climate Tech market to UK regions, through chains and networks of supply (£m)

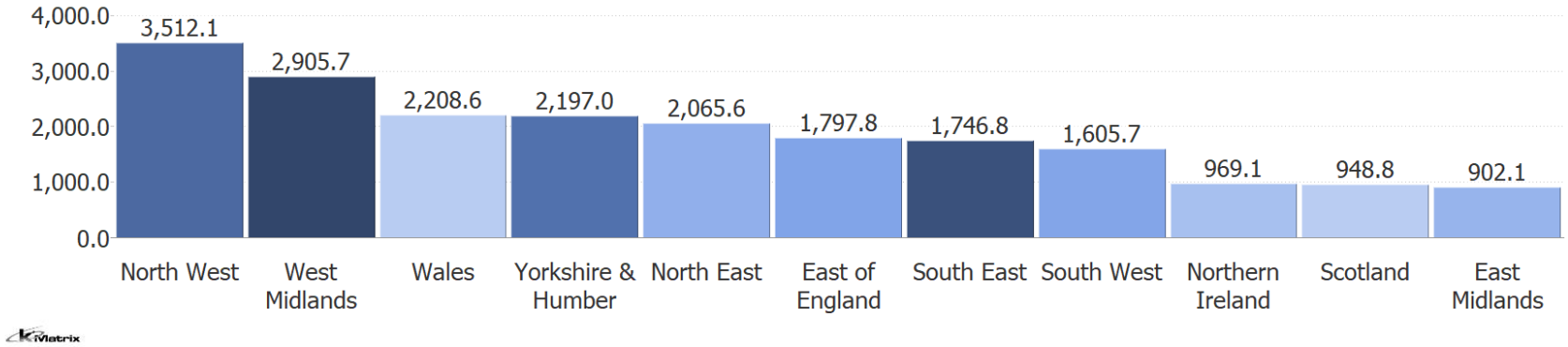


Figure 1.28 shows the net benefit of the Climate Tech sector in London, to UK chains and networks of supply outside of London, by region. The greatest beneficiaries of sales generation as a direct result of London activity are:

- The North West with £3.51bn, or 5.2% of the London total sales
- The West Midlands with £2.91bn or 4.3% of the London total sales

- Wales with £2.20bn or 3.3% of the London total sales
- Yorkshire & Humber with £2.20bn or 3.3% of the London total sales
- The North East with £2.07bn or 3.1% of the London total sales
- The rest of the South East with £1.75bn or 2.6% of the London total sales

Table 1.11: 2024/25 Net benefit of London's Climate Tech market to UK regions, through chains and networks of supply, by sub-sector (£m)

L 2	Level 3	London Total Sales (£m)	North West Benefit (£m)	North East Benefit (£m)	Yorkshire & Humber Benefit (£m)	West Midlands Benefit (£m)	East Midlands Benefit (£m)	East of England Benefit (£m)	South West Benefit (£m)	South East Benefit (£m)	Wales Benefit (£m)	Scotland Benefit (£m)	Northern Ireland Benefit (£m)
Climate Adaptation & Resilience	Agriculture ^	0.6	0.8	0.6	0.7	0.6	0.9	0.5	1.2	0.4	0.3	0.2	0.6
	Critical Buildings and Installations	1.5	0.9	2.4	1.5	1.1	1.0	1.1	1.1	1.9	1.0	0.7	1.5
	Smart Irrigation Systems ^	1.0	1.3	0.8	1.8	0.3	1.8	1.4	2.1	1.7	0.5	0.4	1.0
Climate Data, Analytics & Fintech	Blockchain for Sust. Sourcing	0.8	0.9	0.4	1.0	0.5	0.4	0.8	0.5	0.5	0.6	0.4	0.8
	Carbon Finance *	1,710.3	866.0	1,166.3	1,335.6	276.7	384.4	519.9	742.4	982.6	263.5	429.1	1,710.3
	Climate Risk Assessment ^	0.6	0.3	0.1	0.2	0.1	0.4	0.3	0.4	0.3	0.1	0.1	0.6
	Emissions Tracking	5.4	3.1	1.1	3.7	1.0	2.4	1.4	1.4	2.8	1.8	1.4	5.4
Climate-resilient Infrastructure	Engineered or Managed Water Systems '	1.6	0.7	1.2	1.4	0.5	0.8	1.2	1.3	1.3	0.2	0.5	1.6
	Green Roofing '	1.1	0.6	0.8	0.7	0.4	0.9	0.4	1.0	1.1	0.4	0.4	1.1
	Green Walls '	0.5	0.3	0.4	0.3	0.1	0.3	0.2	0.4	0.2	0.2	0.1	0.5
	Nature-Based Solutions Water Management '	1.6	0.9	1.2	0.9	0.5	0.5	0.7	1.2	0.6	0.4	0.2	1.6
Decarbonisation of Industry &	Carbon Capture & Storage *	4.7	3.9	2.8	5.4	1.8	3.6	1.9	1.4	1.7	1.6	1.7	4.7
	Circular Material Platforms	2.3	1.3	2.1	3.9	0.6	3.0	1.8	3.7	3.3	2.0	1.4	2.3

	Industrial Process Electrification	4.5	2.9	1.1	3.2	1.4	2.5	2.7	2.3	2.7	1.3	0.4	4.5
	Industry	17.0	11.9	21.0	30.7	3.8	20.8	19.5	20.5	21.8	10.6	8.2	17.0
	Low-carbon Materials	4.5	4.7	1.9	2.6	2.1	1.9	1.4	4.7	5.6	2.2	1.1	4.5
	Resource Efficiency	0.5	0.9	0.8	1.1	0.4	0.7	0.3	0.7	0.6	0.2	0.2	0.5
	Transport	6.1	13.8	3.4	6.6	6.4	4.8	8.9	9.0	8.7	5.0	3.3	6.1
District Heat Networks	Construction & Maintenance	10.7	5.1	7.7	5.4	2.6	7.5	5.8	2.9	4.2	3.4	2.7	10.7
	Energy Centres	4.0	3.5	2.0	4.4	1.3	1.8	2.0	2.9	1.7	1.2	1.6	4.0
	Operation	6.1	3.0	3.8	3.9	0.8	2.0	2.3	2.4	2.3	2.5	1.4	6.1
Energy Storage & Grid Management	Additional Energy Sources *	16.4	15.2	7.9	12.5	2.0	8.6	8.9	12.6	11.9	7.1	4.2	16.4
	Alternative Fuels	14.9	9.4	10.2	8.2	1.6	7.3	5.1	6.4	11.8	5.7	3.3	14.9
	Smart Grids & Demand Response	5.9	3.4	4.1	6.7	1.4	5.4	5.0	5.8	3.6	3.4	2.8	5.9
Green Materials & Chemistry	Bio-based Materials	4.0	1.5	1.3	1.6	0.7	1.2	1.5	2.6	1.5	1.0	0.8	4.0
	Material Efficiency	2.8	1.9	1.4	1.9	2.2	3.4	2.3	4.1	3.3	1.5	1.0	2.8
	Non-toxic Chemistry	4.1	7.2	6.3	8.8	1.3	4.5	3.3	3.7	4.7	3.1	1.9	4.1
Low Carbon	Alternative Fuels	210.0	68.0	120.0	210.0	38.0	120.0	113.8	98.0	98.0	44.0	54.7	210.0
	Building Technologies *	320.8	110.3	87.7	220.6	48.7	217.2	71.5	185.5	229.6	96.7	47.1	320.8
	Energy Management *	27.7	10.7	24.7	28.2	6.2	23.2	13.5	17.8	18.2	14.1	10.8	27.7
	Nuclear Power *	22.1	18.8	11.6	14.2	9.1	26.7	21.8	18.3	1.0	11.4	0.2	22.1
Pollution Prevention & Environmental	Air Pollution *	5.2	6.2	2.4	5.2	1.2	2.2	4.2	7.3	7.0	1.8	1.6	5.2
	Contaminated Land *	2.6	3.7	1.5	2.7	1.4	2.2	1.1	2.8	2.3	0.6	0.7	2.6
	Environmental Consultancy *	11.7	10.0	7.8	9.0	2.9	3.4	4.5	8.7	5.3	5.0	2.9	11.7

	Environmental Monitoring *	2.7	2.2	1.7	1.8	0.4	1.9	0.8	1.1	0.7	1.0	0.4	2.7
	Marine Pollution Control *	0.5	0.5	0.3	0.4	0.2	0.6	0.4	0.3	0.6	0.1	0.3	0.5
	Noise & Vibration Control *	5.6	5.3	1.8	4.7	0.7	2.1	1.5	2.9	0.2	2.5	1.0	5.6
Remanufacture	IRs "	51.7	35.5	16.8	25.7	14.1	30.1	28.7	34.3	11.4	21.9	13.2	51.7
	OEMs "	54.6	41.5	18.6	41.5	12.0	14.7	27.7	22.6	14.5	15.2	12.4	54.6
	Remanufacture Engin. & Equip. "	22.4	41.2	28.1	30.0	9.2	34.8	26.5	12.1	44.3	19.9	11.8	22.4
Renewable Energy	Air Source Heat Pumps	30.6	19.3	21.0	34.1	16.1	44.7	34.2	10.0	16.3	5.3	15.0	30.6
	Biomass *	66.8	29.6	19.1	63.2	17.0	41.9	23.0	31.2	36.6	24.9	11.2	66.8
	Geothermal	125.6	82.1	92.7	111.1	57.0	177.9	191.1	60.1	110.4	36.5	95.1	125.6
	Hydroelectric *	5.1	2.2	3.1	3.6	0.6	2.2	1.7	1.8	3.0	1.5	2.5	5.1
	Renewable Consultancy *	8.0	2.5	5.7	5.9	2.8	4.0	1.9	4.8	2.8	2.5	2.0	8.0
	Solar	129.7	106.7	153.6	132.1	84.5	107.8	109.7	80.8	107.7	60.6	64.7	129.7
	Wave & Tidal *	0.6	0.7	0.4	0.7	0.1	0.2	0.3	0.4	0.9	0.1	0.3	0.6
	Wind *	208.9	158.2	57.3	67.5	72.8	115.0	69.3	96.5	112.3	78.7	28.7	208.9
Sustainable Agriculture & Food Tech	Alternative Proteins	6.9	7.5	6.1	9.0	1.6	6.6	3.1	5.6	4.0	1.9	1.7	6.9
	Controlled-environment Agriculture	0.5	0.9	0.5	0.4	0.5	0.3	0.8	0.9	1.0	0.3	0.3	0.5
	Precision Agriculture	1.8	1.1	0.5	1.5	0.3	1.1	0.9	0.7	0.5	0.5	0.3	1.8
Sustainable Mobility & Transport	Active Transport	8.1	2.5	4.9	6.4	1.3	2.2	3.4	7.6	5.0	3.0	2.6	8.1
	Alternative Fuel Vehicle	153.4	180.1	95.7	229.0	95.7	177.9	103.7	75.8	103.8	103.4	58.7	153.4
	Alternative Fuels	23.5	11.2	11.3	15.8	7.5	12.4	6.3	13.9	5.0	4.5	3.4	23.5

	Low-carbon Shipping & Aviation	2.6	5.0	3.7	1.9	1.8	2.1	3.0	2.9	2.8	1.5	0.6	2.6
Sustainable Water Technologie	Water Efficiency	6.5	2.9	3.2	6.4	3.0	4.8	4.5	3.1	4.9	2.2	2.2	6.5
	Water Supply & Wastewater Treatment	88.4	39.9	44.2	87.1	41.3	65.9	62.3	43.1	67.5	29.8	30.5	88.4
Waste & Resource Recovery	Recovery and Recycling	47.7	74.3	81.0	69.1	35.5	69.8	50.5	34.8	86.9	22.5	16.9	47.7
	Waste Management *	26.2	19.8	16.7	12.1	6.5	8.9	19.2	22.7	21.2	14.1	5.8	26.2
Total		**67,214.4**	**3,512.1**	**2,065.6**	**2,197.0**	**2,905.7**	**902.1**	**1,797.8**	**1,605.7**	**1,746.8**	**2,208.6**	**948.8**	**969.1**

Note: *also in LCEGS dataset; “ also in Circular Economy dataset; ‘ also in G&BI dataset and ^ also in Climate Adaptation dataset

Table 1.11 shows the significant London sub-sectors which generate large sales outside of London include:

- Water and Wastewater Treatment in the North West with £88.4m (5.4%), and the West Midlands with £87.1m (5.3%)
- Alternative Fuel Vehicle in the West Midlands with £229.0m (5.9%); North East with £180.1 (4.6%); East of England with £177.9m (4.6%); and North West with £153.4m (3.9%)
- Alternative Fuels (Low Carbon) in the West Midlands with £210.0m (5.4%), and the North West with £210.0m (5.4%)
- Carbon Finance in the North West with £1.7bn (7.0%), the West Midlands with £1.3bn (5.5%) and Yorkshire & Humber with £1.2bn (4.8%)
- Building Technologies in the North West with £320.8m (7.1%), Wales with £229.6m (5.1%) and the West Midlands with £220.6m (4.9%)
- Solar in Yorkshire & Humber with £153.6m (4.5%), the West Midlands with £132.1m (3.9%), and the North West with £129.7m (3.8%)
- Wind in the North West with £208.9m (3.2%) and the North East with £158.2m (2.4%)

Part of the benefit in the chains and networks of supply come from investment from London companies made into the chains and networks of supply across the country and into Europe. Another element concerns R&D within universities, where London provides financial and practical support for development within industry, additionally, head office functions also play a role. More specifically, project assembly and coordination of major large projects often occurs in London, with companies drawing from new or established chains and networks of supply from across the country, to supply and fulfil significant contracts. With regards to Carbon Finance, activity in London through the provision of finance directly leads to project delivery within the regions across the UK.

1.4 London's Climate Tech by Local Authority

1.4.1 Climate Tech by Local Authority

This section of the report analyses Climate Tech in London's Local Authorities.

Figure 1.29: London's Climate Tech Sales 2024/25 by Local Authority

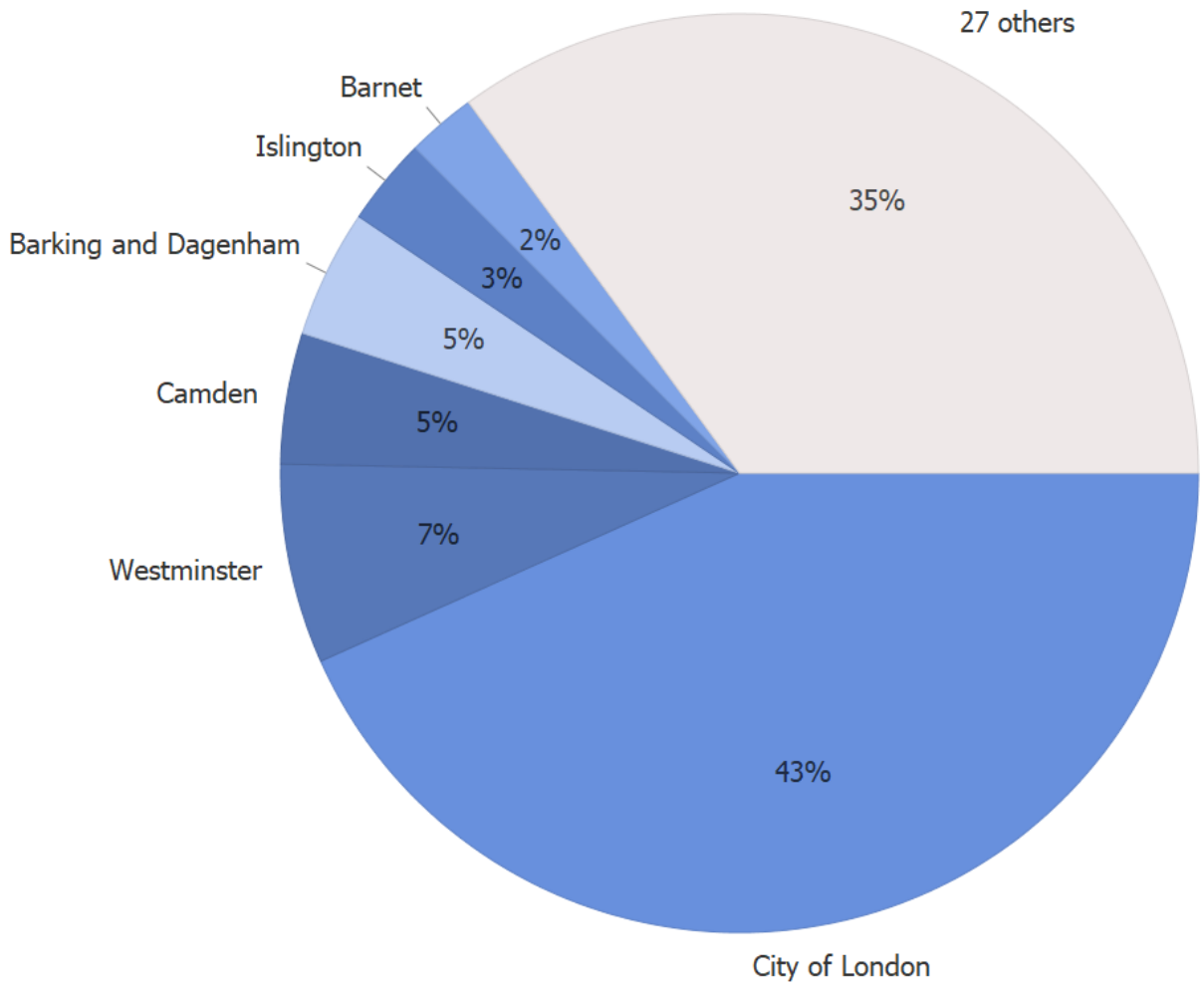


Figure 1.29 shows Climate Tech sales for 2024/25 split by Local Authority. The City of London accounts for 43% of London Climate Tech sales (42% in 2022/23), if Carbon Finance is excluded from the analysis, then the percentage of London's Climate Tech sales associated with the City of London reduces to 13% of the total sales, although it is still ahead of Westminster (11%), Camden (7%) and Barking & Dagenham (7%). This highlights size of this sub-sector means it has a significant impact on the size of Climate Tech within the City of London and its ranking with other Local Authorities in London.

Local Authorities are analysed in more detail, by year, by economic measure and by Climate Tech activity in the following section.

1.4.2. Local Authority Analysis by Year and Sub-Sector

Table 1.12: Local Authorities Sales, Companies and Employment from 2022/23 to 2024/25

	Sales £m					# Companies					# Employees				
Local Authority	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**
Barking and Dagenham	2,605.4	8.1%	2,815.8	7.5%	3,026.5	961	8.1%	1,038	7.4%	1,116	19,866	7.0%	21,265	6.4%	22,632
Barnet	1,398.7	8.3%	1,515.3	8.1%	1,637.6	526	8.2%	569	7.9%	614	10,484	7.3%	11,246	6.8%	12,014
Bexley	452.1	7.8%	487.5	7.9%	525.8	175	8.1%	189	7.5%	203	3,189	7.0%	3,413	6.8%	3,644
Brent	711.7	8.8%	774.0	8.4%	838.9	280	8.7%	304	8.2%	329	5,310	7.8%	5,725	7.2%	6,138
Bromley	874.6	8.1%	945.3	8.1%	1,022.1	332	8.2%	359	7.8%	387	6,334	7.2%	6,789	7.0%	7,263
Camden	2,661.0	7.9%	2,872.2	8.0%	3,102.4	1,009	7.8%	1,087	7.9%	1,173	19,642	7.1%	21,033	6.7%	22,450
City of London	23,382.5	10.7%	25,895.8	12.4%	29,097.9	7,557	11.0%	8,385	12.1%	9,401	123,392	9.2%	134,759	9.9%	148,099
Croydon	788.9	8.0%	852.0	8.3%	923.0	300	7.9%	324	8.0%	349	5,625	7.1%	6,024	7.0%	6,447
Ealing	745.1	8.2%	806.0	8.1%	871.0	293	8.2%	317	7.7%	341	5,551	7.3%	5,956	6.9%	6,369
Enfield	859.6	8.2%	930.3	8.1%	1,005.7	337	8.1%	365	7.9%	393	6,387	7.3%	6,852	6.9%	7,325
Greenwich	409.1	8.3%	442.9	7.7%	477.1	159	8.1%	171	7.6%	184	2,982	7.0%	3,189	6.4%	3,394
Hackney	1,154.0	7.8%	1,244.2	7.6%	1,338.8	459	7.6%	493	7.3%	529	8,934	6.6%	9,525	6.3%	10,127
Hammersmith and Fulham	674.8	8.2%	730.3	8.5%	792.2	257	8.4%	279	8.4%	302	4,735	7.7%	5,098	7.1%	5,460
Haringey	448.8	7.9%	484.4	7.9%	522.6	174	7.7%	188	7.5%	202	3,392	6.7%	3,621	6.6%	3,860
Harrow	675.6	8.3%	731.6	8.2%	791.4	262	8.3%	284	7.9%	306	5,102	7.4%	5,478	7.0%	5,861
Havering	347.8	7.7%	374.6	8.0%	404.8	140	7.8%	151	7.8%	163	2,573	7.0%	2,752	6.8%	2,940
Hillingdon	1,167.7	8.5%	1,266.8	8.2%	1,371.2	436	8.5%	473	8.2%	512	8,333	7.6%	8,967	7.1%	9,603
Hounslow	738.0	8.6%	801.3	8.5%	869.4	292	8.1%	316	8.4%	342	5,305	7.4%	5,699	7.3%	6,117
Islington	1,781.0	7.6%	1,917.1	7.9%	2,069.3	700	7.8%	754	7.7%	812	13,586	6.8%	14,505	6.8%	15,489
Kensington and Chelsea	829.4	8.1%	896.3	8.3%	970.6	308	7.9%	333	8.2%	360	6,091	7.2%	6,529	6.9%	6,981
Kingston upon Thames	513.4	8.2%	555.5	7.9%	599.5	197	8.3%	213	7.7%	230	3,844	7.3%	4,123	6.7%	4,400

Lambeth	1,076.0	8.4%	1,166.2	8.4%	1,263.6	426	8.3%	461	7.9%	498	8,084	7.4%	8,681	7.0%	9,285
Lewisham	492.0	8.8%	535.4	8.6%	581.6	190	9.3%	207	8.4%	225	3,458	10.3%	3,814	7.4%	4,097
Merton	480.8	8.0%	519.3	7.8%	559.8	192	8.1%	207	7.6%	223	3,577	7.1%	3,832	6.9%	4,097
Newham	421.7	2.5%	432.2	8.2%	467.9	162	2.9%	167	8.0%	180	2,919	1.5%	2,964	7.2%	3,178
Redbridge	632.1	8.4%	685.5	8.2%	741.6	236	10.2%	260	7.8%	280	4,286	12.9%	4,837	6.9%	5,171
Richmond upon Thames	939.6	8.0%	1,014.5	7.8%	1,093.3	351	7.9%	379	7.6%	408	7,086	6.9%	7,577	6.5%	8,072
Southwark	1,154.5	8.2%	1,249.2	8.1%	1,350.2	443	8.2%	480	7.9%	518	8,187	7.4%	8,790	7.0%	9,407
Sutton	887.1	8.0%	958.3	7.6%	1,031.3	340	7.9%	367	7.4%	394	6,610	6.9%	7,069	6.4%	7,520
Tower Hamlets	1,260.4	8.4%	1,366.6	8.7%	1,485.5	504	8.3%	546	8.2%	591	8,536	7.6%	9,184	7.7%	9,890
Waltham Forest	483.7	8.6%	525.1	8.2%	568.2	179	8.5%	194	7.9%	209	3,493	7.5%	3,755	6.9%	4,014
Wandsworth	939.0	7.8%	1,012.5	8.0%	1,093.8	361	7.9%	389	7.8%	420	7,090	7.0%	7,583	6.7%	8,094
Westminster City	4,062.5	7.6%	4,371.6	8.0%	4,719.8	1,821	8.0%	1,968	7.7%	2,119	36,100	11.4%	40,211	8.0%	43,440

Growth is between one year and the next

Table 1.12 shows the two years of data for Local Authorities for sales, companies and employment. Growth between years is shown in red. Growth between 2022/23 and 2024/25 across all metrics is generally similar at between 7-9% for all Local Authorities, with the City of London being an exception at 11-13%. Redbridge and Lewisham have elevated growth between 2022/23 and 2023/24 due to a modelling error resulting in a lack of data for the small sub-sectors of Environmental Monitoring and Marine Pollution Control in previous LCEGS datasets (from which these sub-sectors are drawn).

Figure 1.30: London's Local Authorities Climate Tech Sales 2024/25 (Level 2)

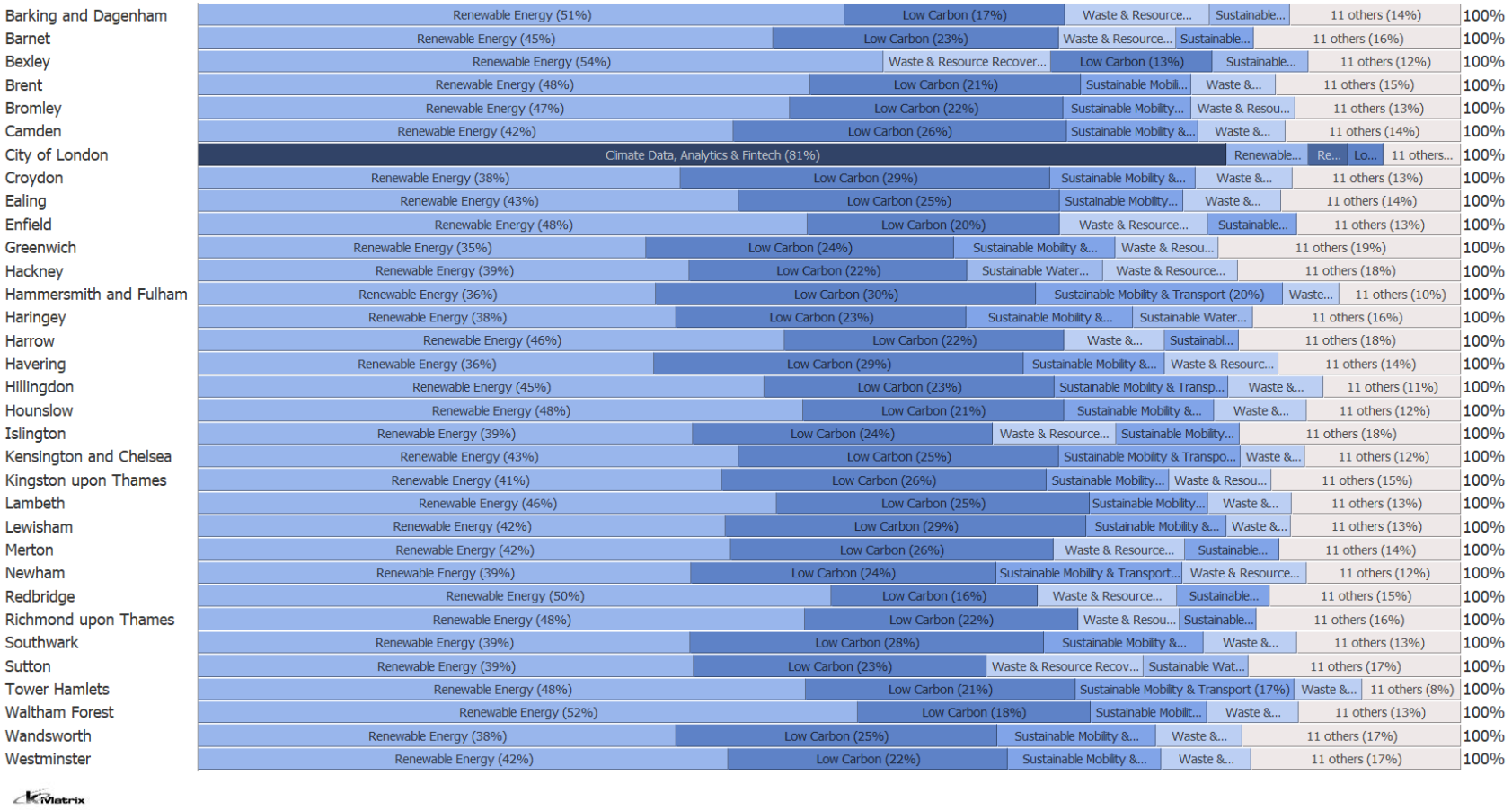
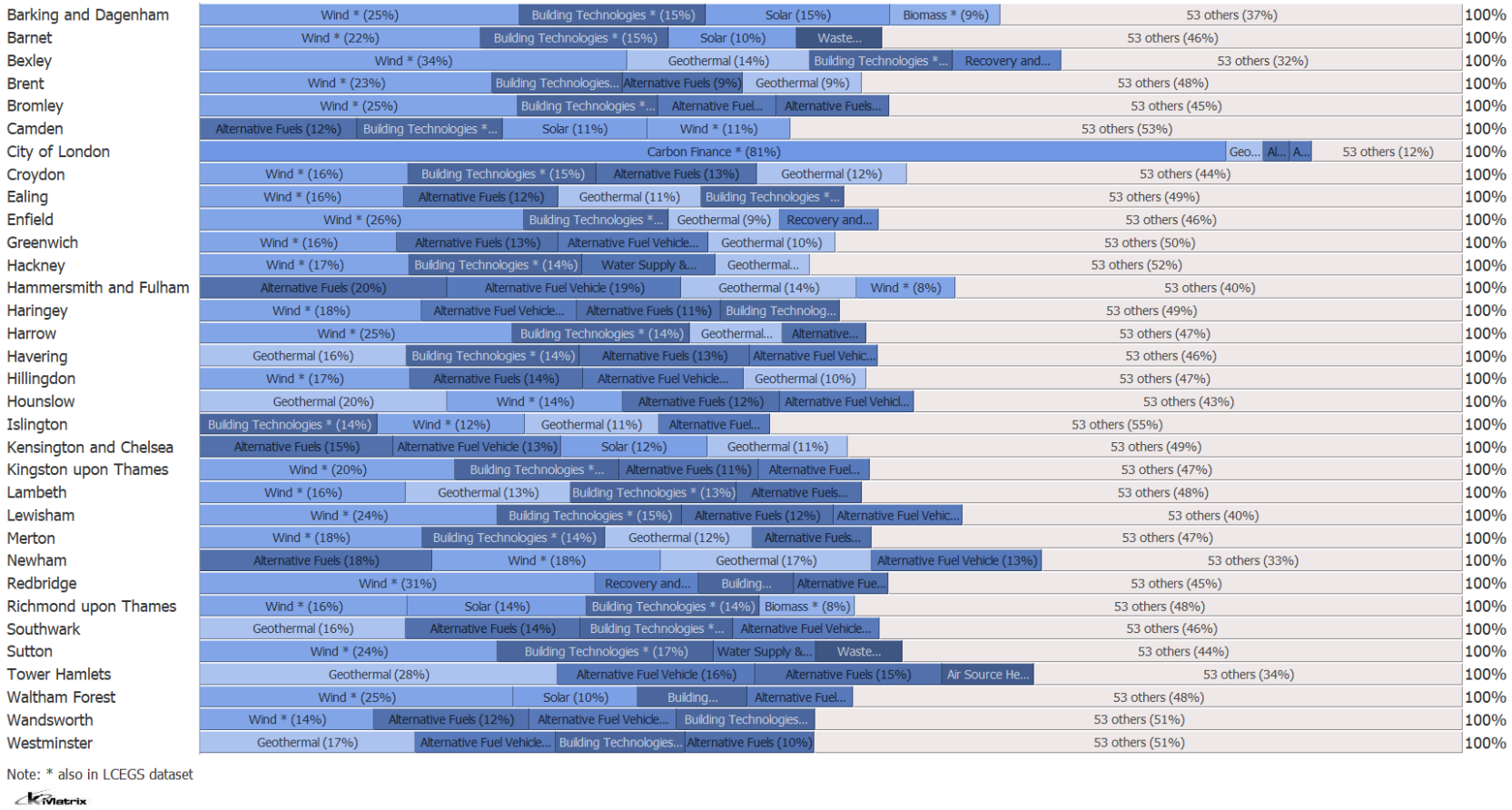


Figure 1.30 shows the different profiles of London's Local Authorities when sales are split at Level 2. The City of London is the most extreme case due to Carbon Finance, but across the remaining Local Authorities there are significant ranges in proportions for Renewable Energy 35-54% (34-53% in 2023/24), Low Carbon 13-30% (13-30% in 2023/24), Sustainable Mobility & Transport 6-20% (6-19% in 2023/24), and Waste & Resource Recovery 4-13% (5-14% in 2023/24). This highlights that London's Local Authorities are not a homogeneous market and show subtle regional variations in activity within the Climate Tech sector. This is highlighted by Figure 1.31 below.

Figure 1.31: London's Local Authorities Climate Tech Sales 2024/25 at Level 3



Note: * also in LCEGS dataset

Figure 1.31 extends the analysis to include the Top 4 sub-sectors for each of London's Local Authorities. Typically, four sub-sectors account for over 50% of the total value, but the sub-sectors and their rankings do differ significantly across the 33 Local Authorities. But there are some consistent sub-sectors running through many of London's Local Authorities and these include Wind, Alternative Fuels, Building Technologies, Alternative Fuel Vehicle, and Geothermal, they are represented in most of London's Local Authorities and are consistent with London's top six sub-sectors.

1.5 London's Climate Tech by Sub-Region

1.5.1 Climate Tech by London's Sub-Region

This section of the report analyses London's Sub-regions. Boroughs in each Sub-Region are provided in Appendix 4.

Figure 1.32: London's Climate Tech Sales 2024/25 by Sub-Region

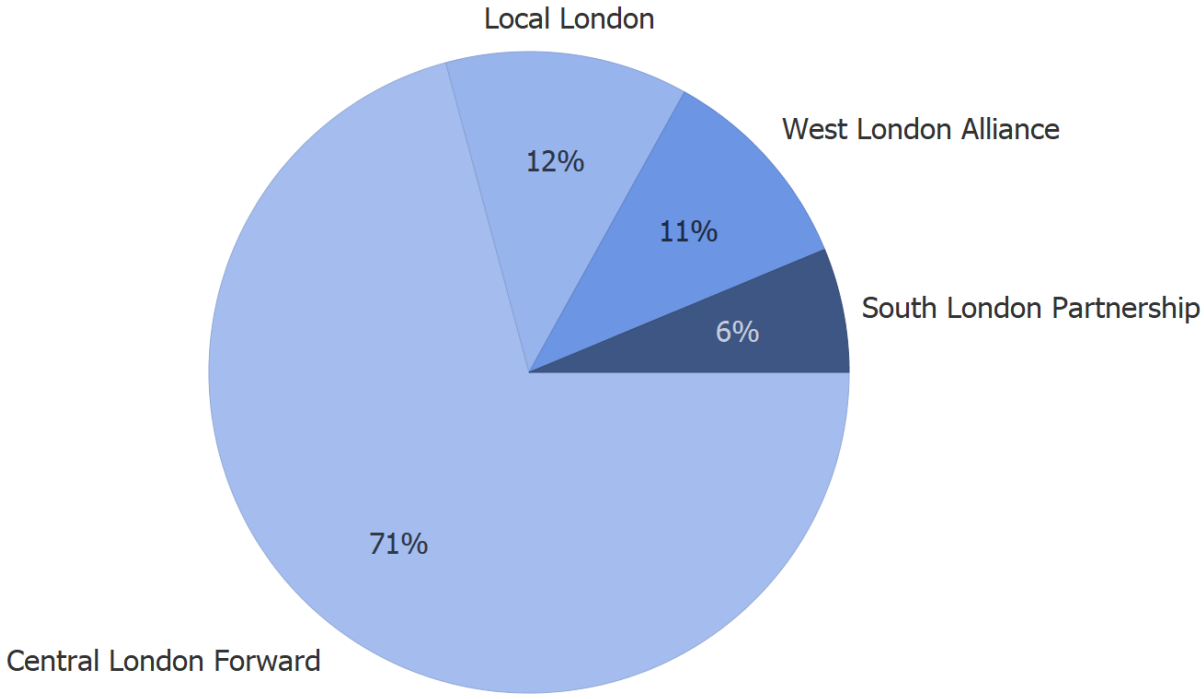


Figure 1.32 shows Climate Tech for 2024/25 split by sub-region for sales. Central London Forward accounts for 71% of London's Climate Tech sales (70% in 2022/23), 69% of companies (69% in 2022/23) and 67% of employment (67% in 2022/23). If Carbon Finance is excluded from the analysis, then the percentage of London's Climate Tech sales associated with Central London Forward reduces to 55% of the total sales, 55% of companies and 57% of employment (55% of sales, 55% of companies and 57% of employment in 2022/23). This highlights that even though Carbon Finance is having a lower impact on the overall Climate Tech growth rates for London than in previous years, the size of this sub-sector means it has a significant impact on the size of Climate Tech within the Central London Forward sub-region and consequently, its ranking with other sub-regions in London.

London's sub-regions are analysed in more detail, by year, by economic measure and by Climate Tech activity in the following section.

1.5.2 London's Sub-regional Analysis by Year and Sub-Sector

Table 1.13: London's Sub-regions Sales, Companies and Employment from 2022/23 to 2024/25

	Sales £m					# Companies					# Employees				
London Sub-region	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**
Central London Forward	39,241.1	9.6%	43,011.5	10.7%	47,596.1	13,952	9.6%	15,292	10.2%	16,847	246,494	8.8%	268,235	8.6%	291,219
Local London	7,086.0	7.8%	7,639.2	7.9%	8,239.8	2,680	8.0%	2,894	7.7%	3,117	52,028	7.3%	55,815	6.7%	59,561
South London Partnership	3,609.7	8.0%	3,899.8	7.9%	4,206.9	1,381	8.0%	1,491	7.6%	1,605	26,740	7.0%	28,625	6.7%	30,536
West London alliance	6,111.7	8.4%	6,625.2	8.2%	7,171.7	2,346	8.3%	2,542	8.1%	2,747	44,820	7.5%	48,170	7.0%	51,561

Growth is between one year and the next

Table 1.13 shows the two years of growth data for London's sub-regions for sales, companies and employment. Growth between 2022/23 and 2024/25 across metrics are generally similar at between 7-9% for the sub-regions, with the exception of Central London Forward with generally 10-11% for sales and companies.

Figure 1.33: London's Sub-regions Climate Tech Sales 2024/25 (Level 2)

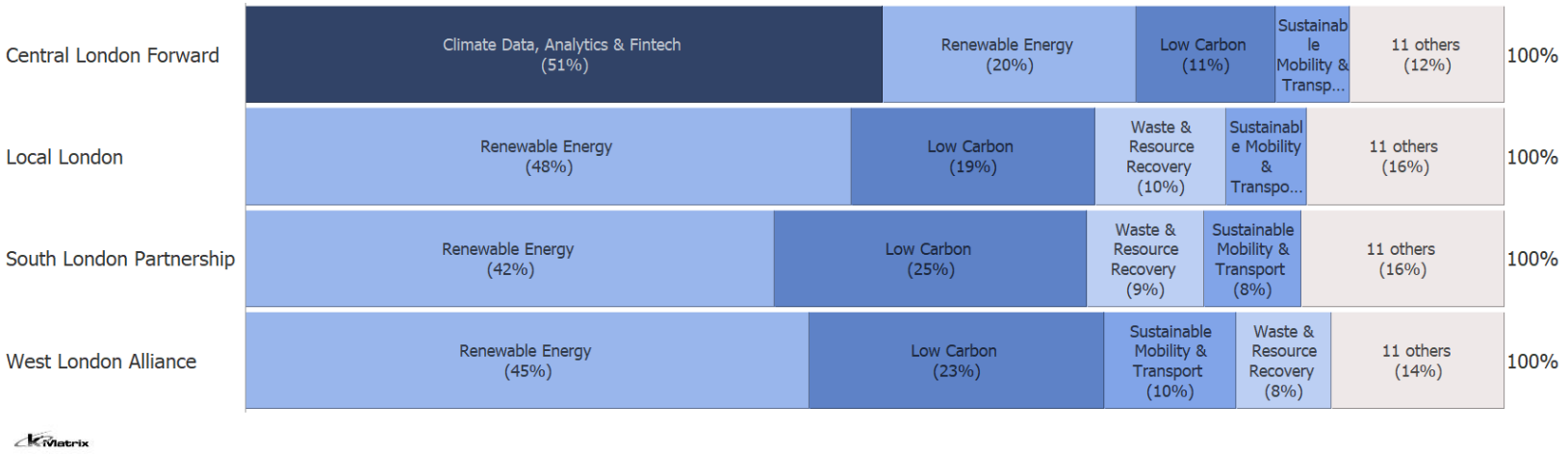


Figure 1.33 shows the different profiles of London's sub-regions when sales are split at Level 2. Central London Forward is the most extreme case due to Carbon Finance, but even across the other sub-regions there are significant ranges in proportions for Renewable Energy 20-48% (21-47% in 2022/23), Low Carbon 11-25% (11-25% in 2022/23), Sustainable Mobility & Transport 6-10% (6-10% in 2022/23), and Easte & Resource Recovery 8-10% (8-11% in 2022/23). This highlights that London's sub-regions are not a homogeneous market, but they actually show subtle regional variations in activity within the Climate Tech sector. This is further confirmed by Figure 1.34 below.

Figure 1.34: London's Local Authorities Climate Tech Sales 2024/25 at Level 2

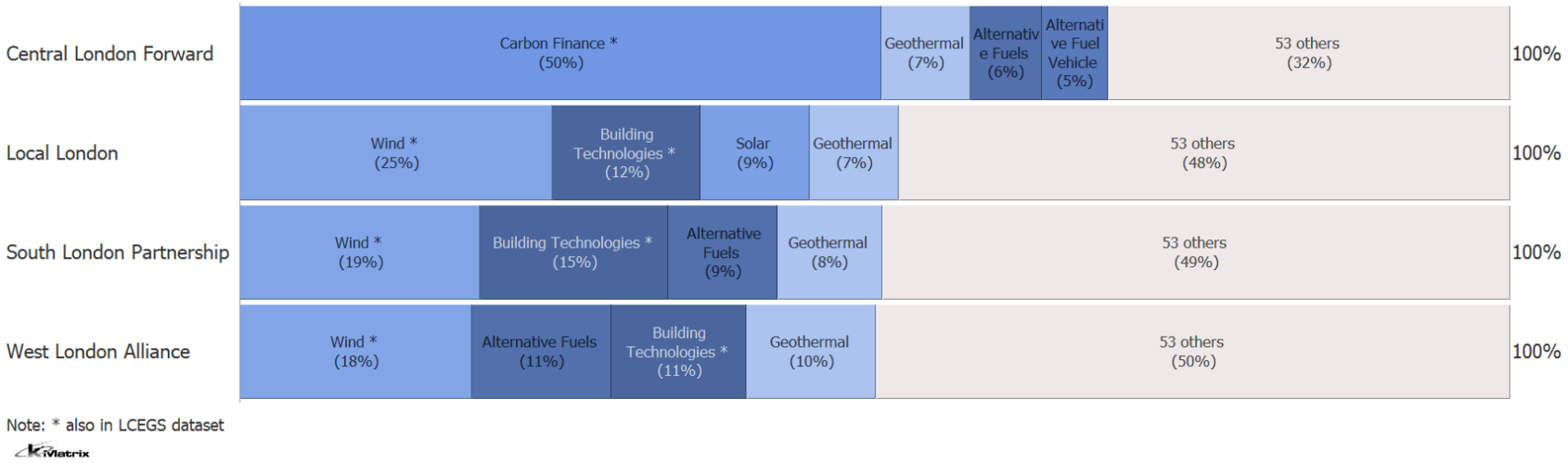


Figure 1.34 extends the analysis to include the Top 4 sub-sectors for each of London's sub-regions. Central London Forward is the only sub-region with Carbon Finance as a top sub-sector. Typically, four sub-sectors account for over 50% of the total value, whilst the sub-sectors are similar, their rankings do differ across the 4 sub-regions. As would be expected these are consistent with the sub-sectors running through many of London's Local Authorities, these being Wind, Building Technologies, Alternative Fuels, and Geothermal; and are consistent with London's top five sub-sectors.

1.5.3 London Sub-regions' Climate Tech Exports

This section of the report addresses London sub-regions' Climate Tech Exports over the past two years and then identifies leading Climate Tech export products and services.

Figure 1.35: London Sub-regions' Exports (£m) 2022/23 to 2024/25

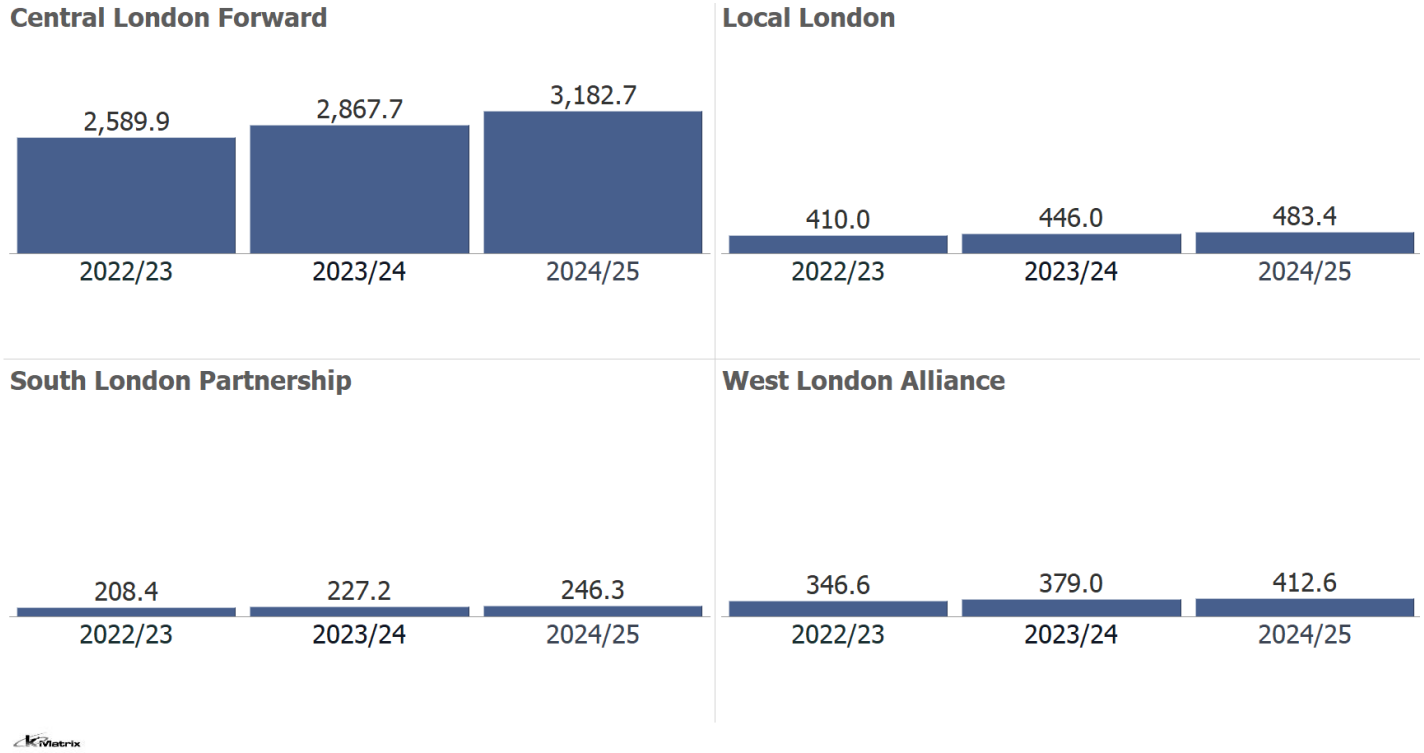


Figure 1.35 shows the value of Central London Forward Exports was £3.2bn in 2024/25, up from £2.6bn in 2022/23. They grew 10.7% from 2022/23 to 2023/24 and 11.0% from 2023/24 to 2024/25.

The value of Local London Exports was £483m in 2024/25, up from £410m in 2022/23. They grew 8.8% from 2022/23 to 2023/24 and 8.4% from 2023/24 to 2024/25.

The value of South London Partnership Exports was £246m in 2024/25, up from £208m in 2022/23. They grew 9.0% from 2022/23 to 2023/24 and 8.4% from 2023/24 to 2024/25.

The value of West London Alliance Exports was £413m in 2024/25, up from £347m in 2022/23. They grew 9.3% from 2022/23 to 2023/24 and 8.9% from 2023/24 to 2024/25.

This is compared to London growth of 10.4% and 10.4%, respectively.

Figure 1.36: London Sub-regions' Exports (%) by Sub-Sector 2024/25

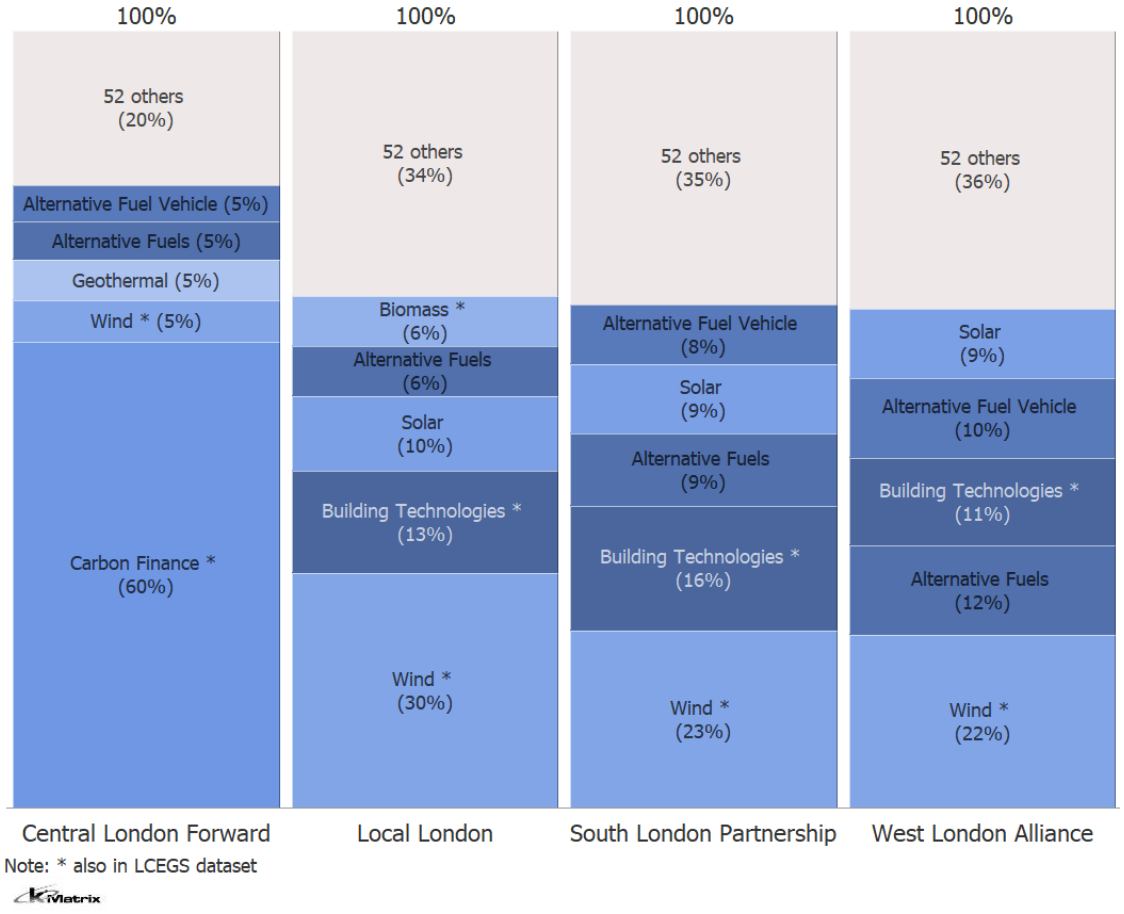


Figure 1.36 illustrates the proportion of Climate Tech exports varies significantly by sub-regions, in line with sales.

Central London Forward is dominated by Carbon Finance 60%; with Wind 5%; Geothermal 5%; Alternative Fuels 5%; and Alternative Fuel Vehicle 5% the leading sub-sectors, accounting for 80% of exports.

The top five exporting sub-sectors in Local London are: Wind 30%; Building Technologies 13%; Solar 10%; Alternative Fuels 6%; and Biomass 6%, accounting for 66% of exports.

The top five exporting sub-sectors in South London Partnership are: Wind 23%; Building Technologies 16%; Alternative Fuels 9%; Solar 9%; and Alternative Fuel Vehicle 8%, accounting for 65% of exports.

The top five exporting sub-sectors in West London Alliance are: Wind 22%; Alternative Fuels 12%; Building Technologies 11%; Alternative Fuel Vehicle 10%; and Solar 9%, accounting for 64% of exports.

1.5.4 London Sub-regions Climate Tech Timeseries

Figure 1.37 Climate Tech London Sub-regions – Total Sales (£m)

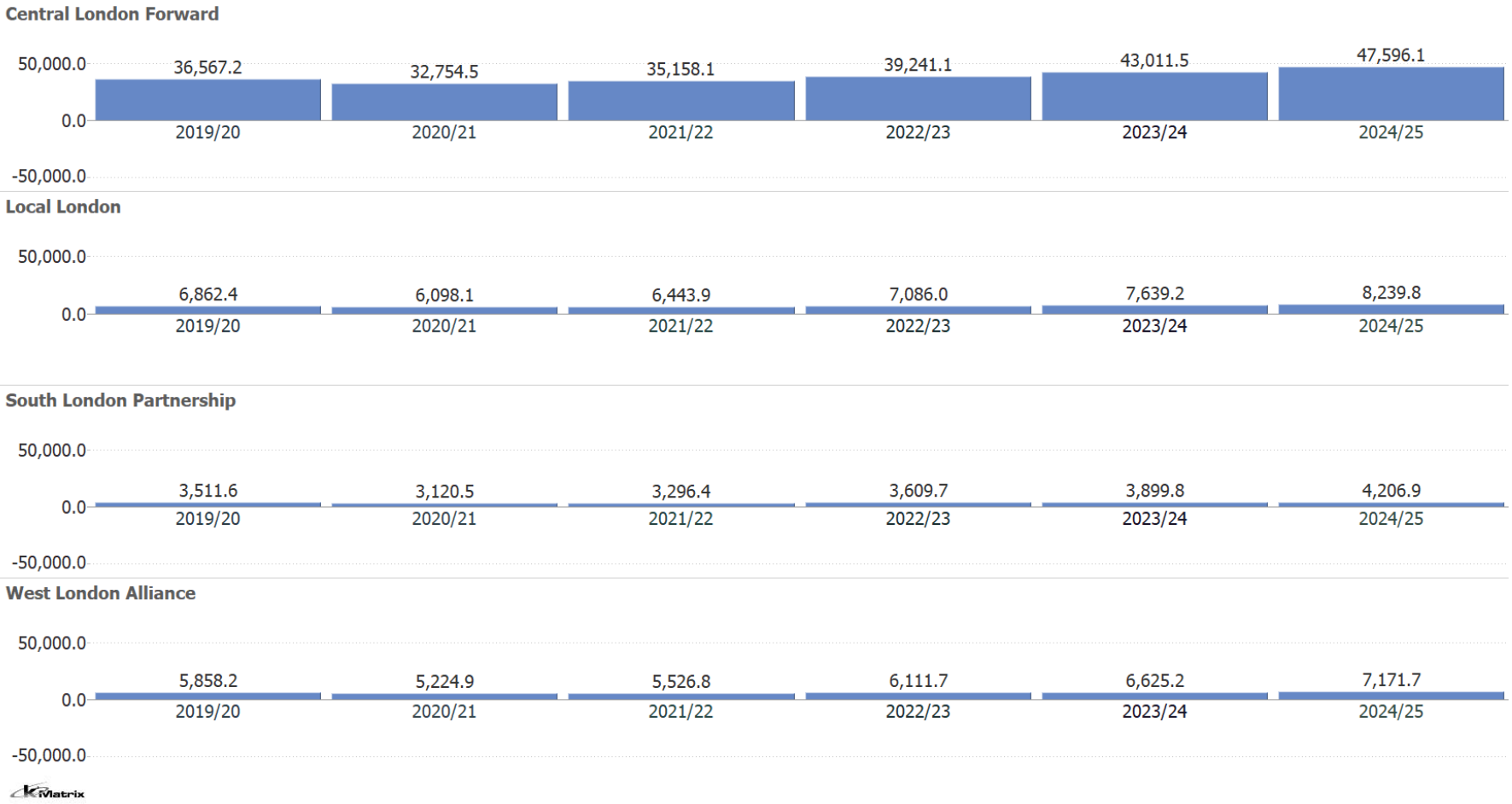


Figure 1.37 illustrates the annual sales for the Climate Tech sector in the four London Sub-regions. Central London Forward grew 30%, Local London grew by 20%, South London Partnership by 20% and West London Alliance by 22% between 2019/20 and 2024/25. This compares with London growth of 27% and UK growth of 24% between 2019/20 and 2024/25.

Figure 1.38: Climate Tech London Sub-regions – Total Number of Companies

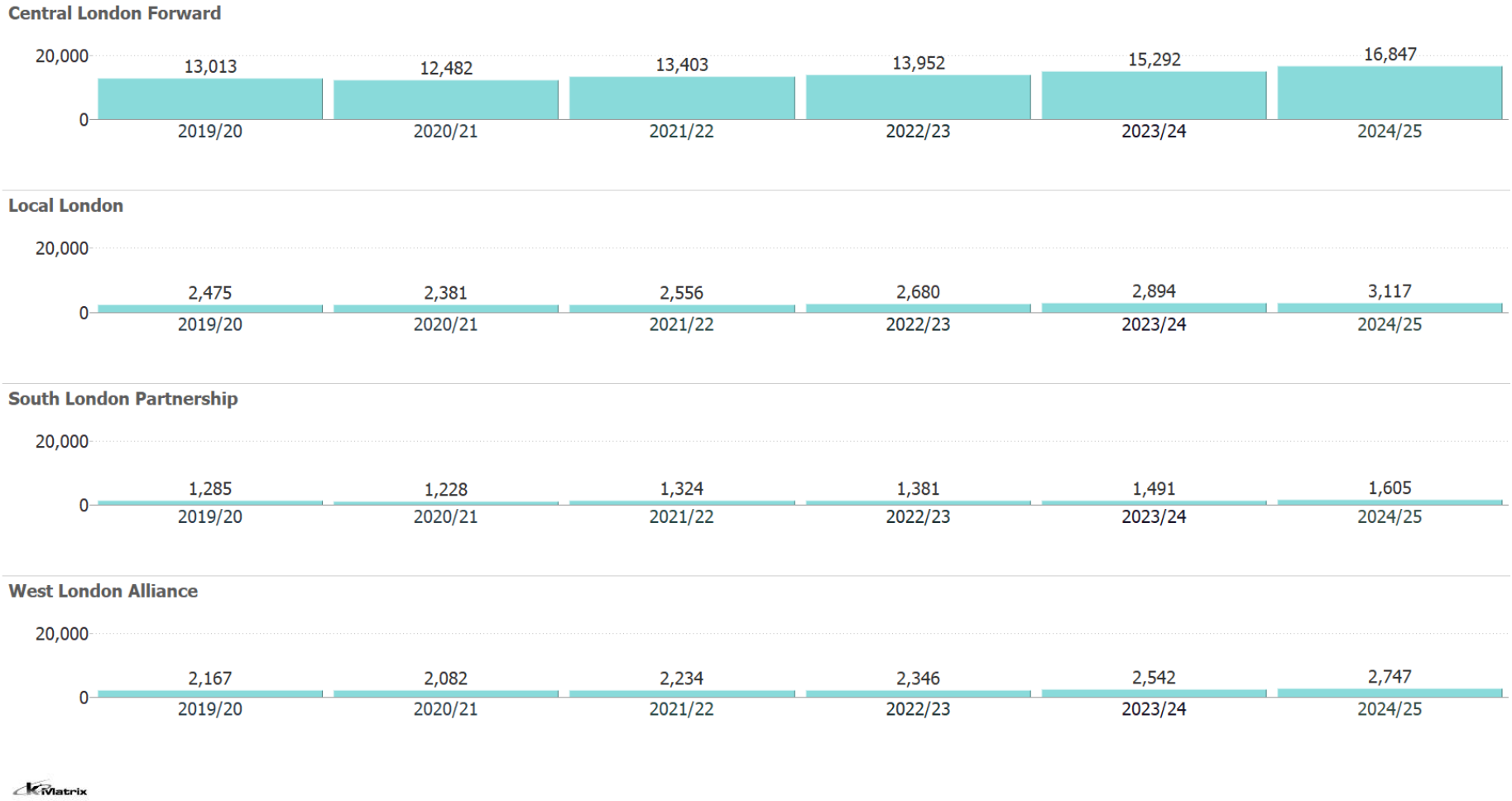


Figure 1.38 illustrates the annual number of companies for the Climate Tech sector in the four London Sub-regions. Central London Forward grew 29%, Local London grew by 26%, South London Partnership by 25% and West London Alliance by 27% between 2019/20 and 2024/25. This compares with London growth of 28% and UK growth of 16% 2019/20 and 2024/25.

Figure 1.39: Climate Tech London Sub-regions – Total Number of Employees

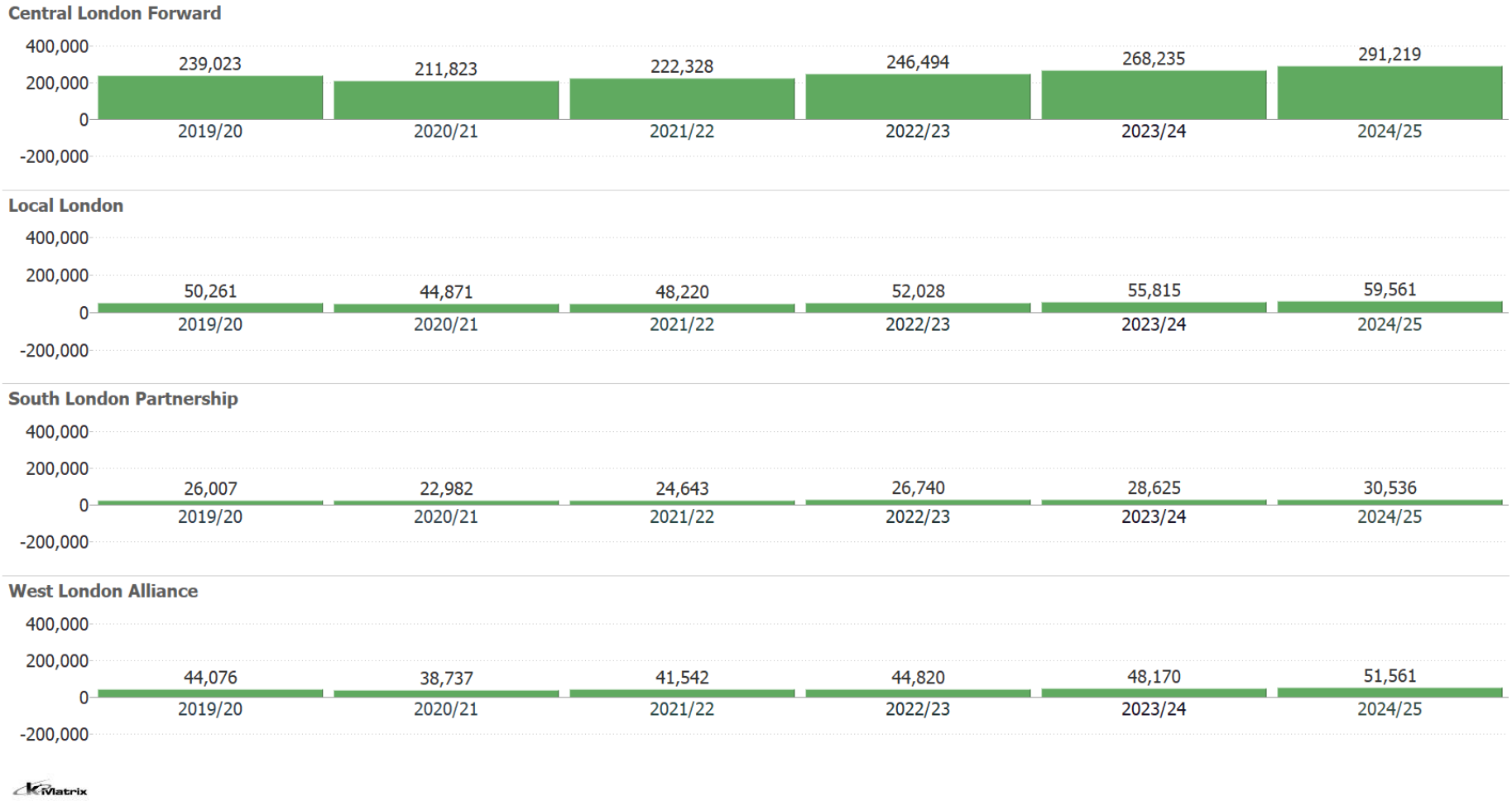


Figure 1.39 illustrates the annual number of employment for the Climate Tech sector in the four London Sub-regions. Central London Forward grew 22%, Local London grew by 19%, South London Partnership by 17% and West London Alliance by 17% between 2019/20 and 2024/25. This compares with London growth of 21% and UK growth of 15% 2019/20 and 2024/25.

2. London's Circular Economy Market Analysis

2.1 London and the UK's Circular Economy Timeseries

Figure 2.1: Circular Economy London – Total Sales (£m)

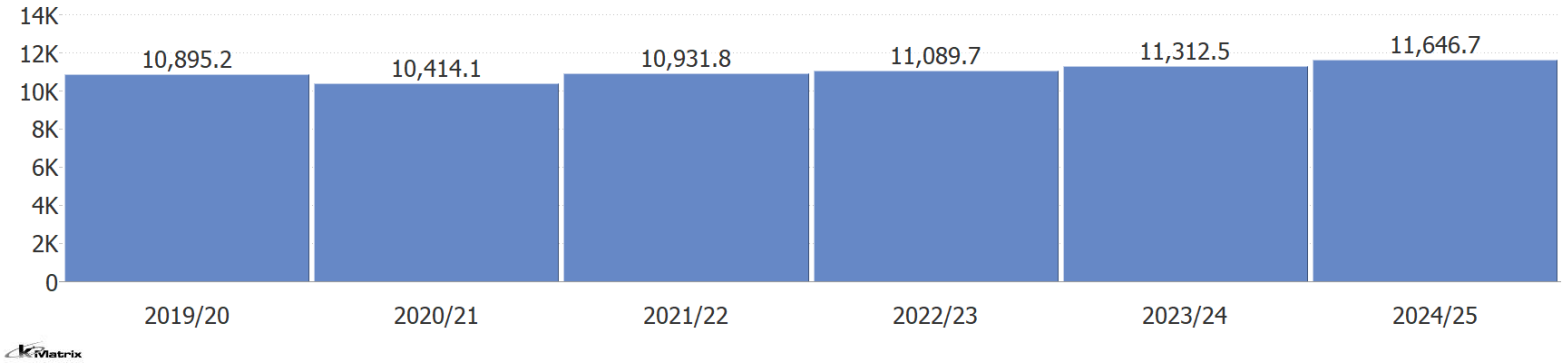
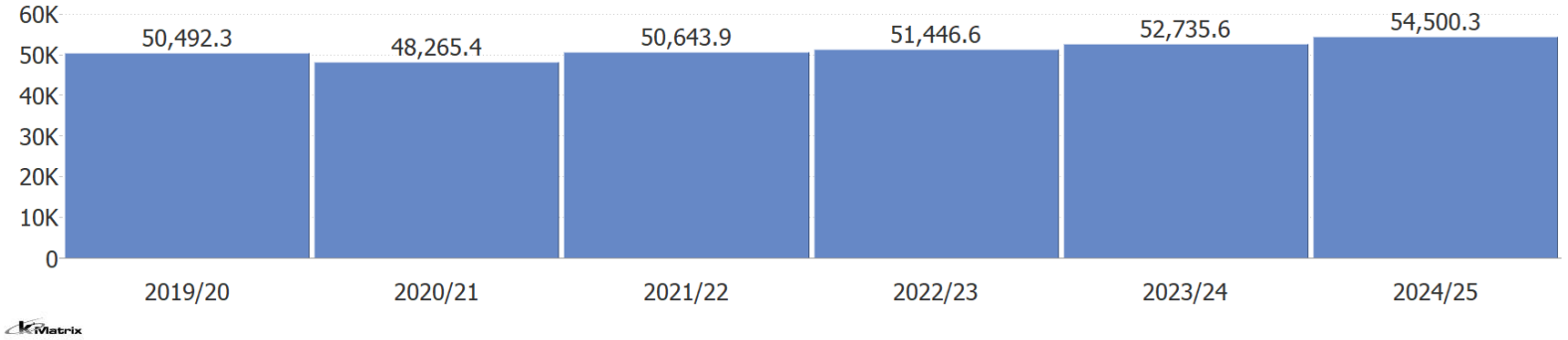


Figure 2.2: Circular Economy UK – Total Sales (£m)



Figures 2.1 and 2.2 illustrate the market contraction of sales for the Circular Economy sector in both the UK and London between 2019/20 and 2020/21, the London market contracted -4% and the UK market by -4% between 2019/20 and 2020/21 when the pandemic was at its peak. The London market grew by 5% and the UK by 6% between 2022/23 and 2024/25. Overall, the London market has grown 7%, and the UK market has grown 8% between 2019/20 and 2024/25.

Figure 2.3: Circular Economy London – Total Number of Companies

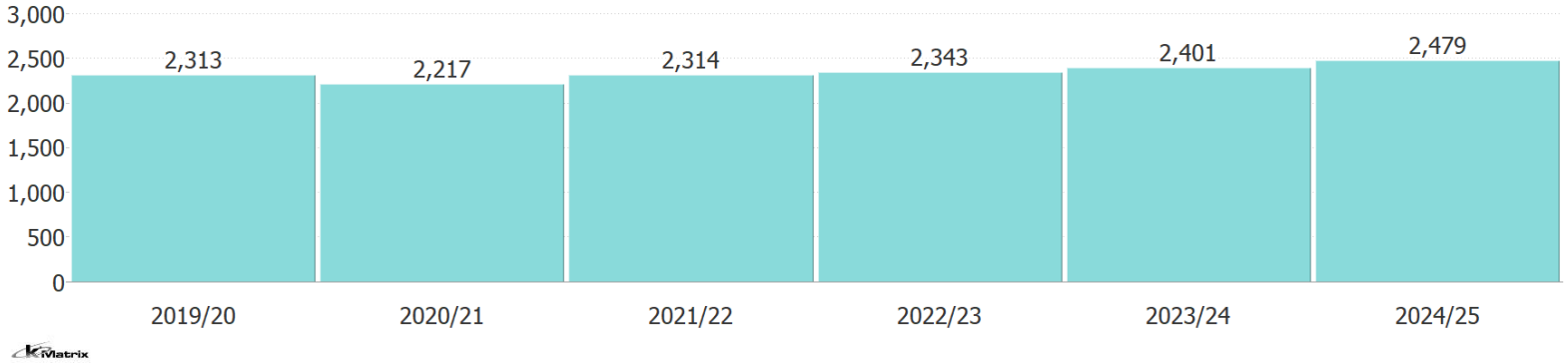
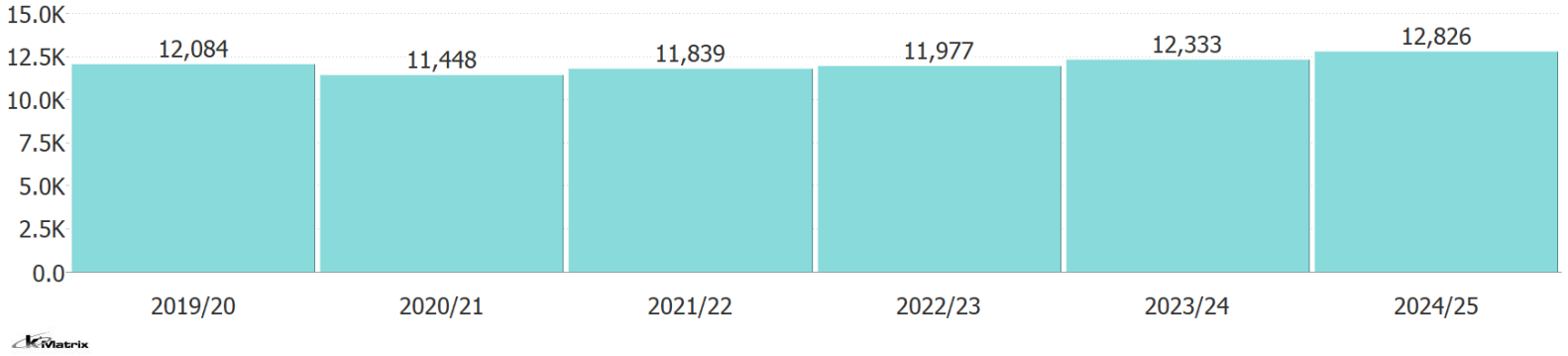


Figure 2.4: Circular Economy UK – Total Number of Companies



Figures 2.3 and 2.4 illustrate during the peak of the pandemic in the year between 2019/20 and 2020/21 the number of companies in the London market contracted by -4.2% and the UK market by -5.3%. The London company base grew by 6% and the UK by 7% between 2022/23 and 2024/25. Overall, the London company base has grown 7%, and the UK has grown 6% between 2019/20 and 2024/25.

Figure 2.5: Circular Economy London – Total Number of Employees

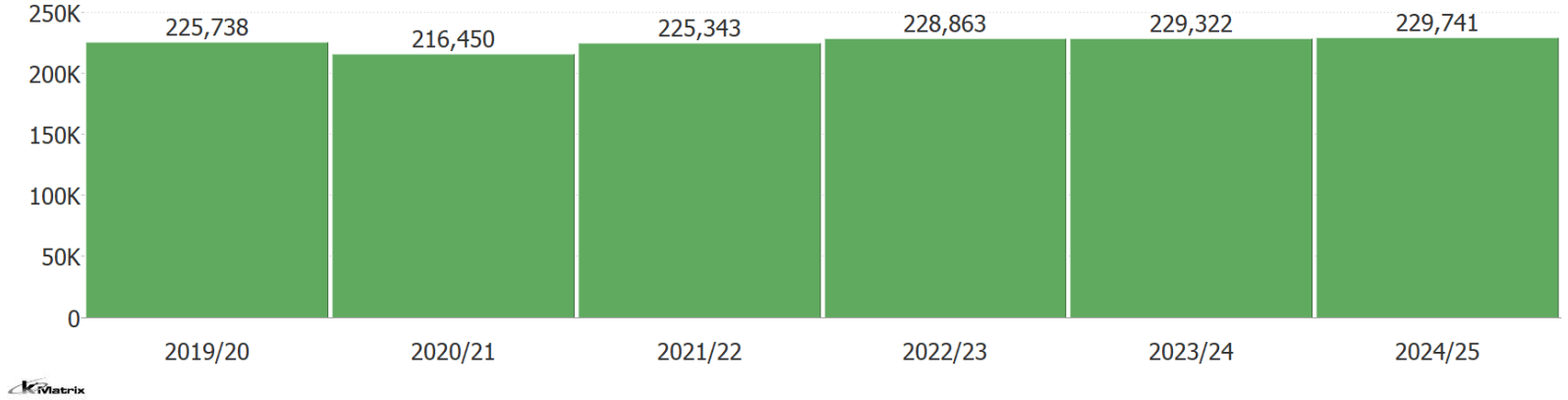
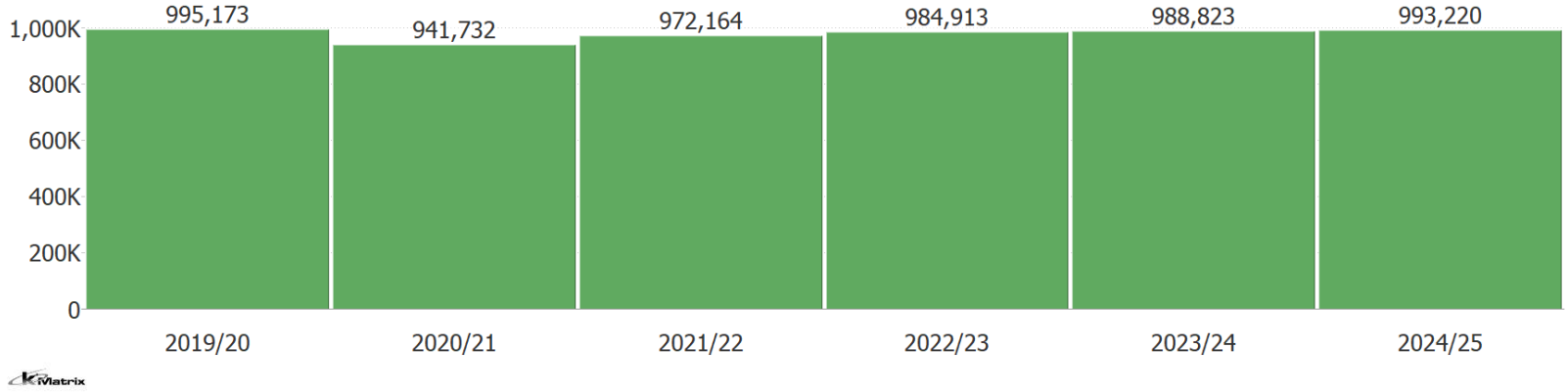


Figure 2.6: Circular Economy UK – Total Number of Employees



Figures 2.5 and 2.6 illustrate the annual number of employees within the Circular Economy sector for both the UK and London. During the peak of the pandemic in the year between 2019/20 and 2020/21, the number of employees in the London market contracted by -4.1% and the UK market by -5.4%. London employment grew by 0.4% and the UK by 0.8% between 2022/23 and 2024/25. Overall, the London employee base has grown 1.8%, and the UK has contracted by -0.2% between 2019/20 and 2024/25.

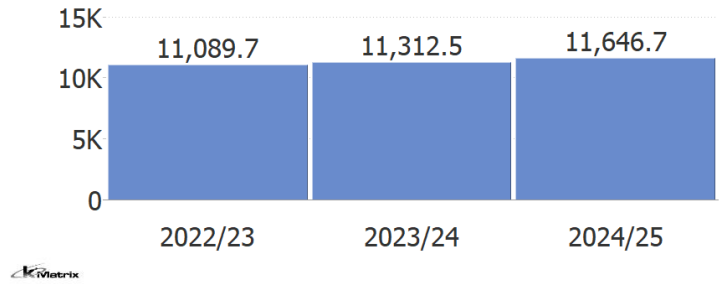
2. 2 London's Circular Economy Market Analysis

This section of the report analyses London's Circular Economy (Level 1 for this dataset) and Level 2.

2.2.1 Circular Economy Compared by Year

In this section of the report London's Circular Economy performance is compared for the last three years for the three key measures of Sales, Employment and Growth.

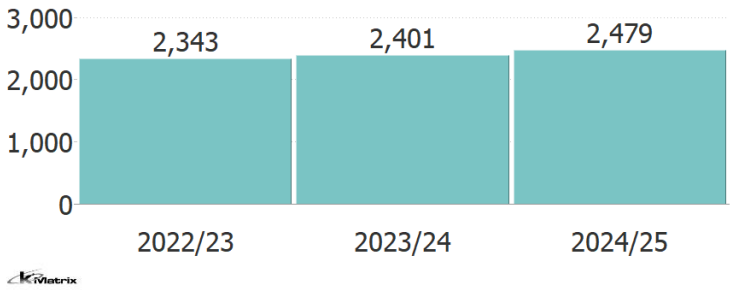
Figure 2.7: Sales 2022/23 to 2024/25 in £m



London's Circular Economy sales in 2024/25 were £11.6bn, up from £11.1bn in 2022/23.

Annual sales growth in London's Circular Economy sector was 2.0% from 2022/23 to 2023/24, and 3.0% from 2023/24 to 2024/25. In comparison UK sales growth in Circular Economy was 2.5% and 3.3%, respectively.

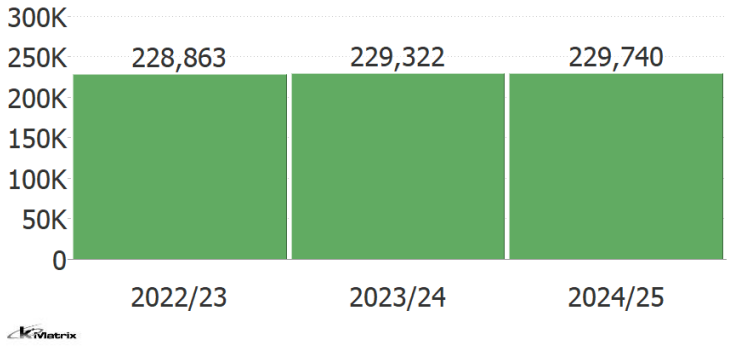
Figure 2.8: Companies 2022/23 to 2024/25



London's Circular Economy company count in 2024/25 was 2,479, up from 2,343 in 2022/23.

Annual company growth in London's Circular Economy sector was 2.5% from 2022/23 to 2023/24, and 3.2% from 2023/24 to 2024/25. In comparison UK company growth in Circular Economy was 3.0%, and 4.0%, respectively.

Figure 2.9: Employment 2022/23 to 2024/25



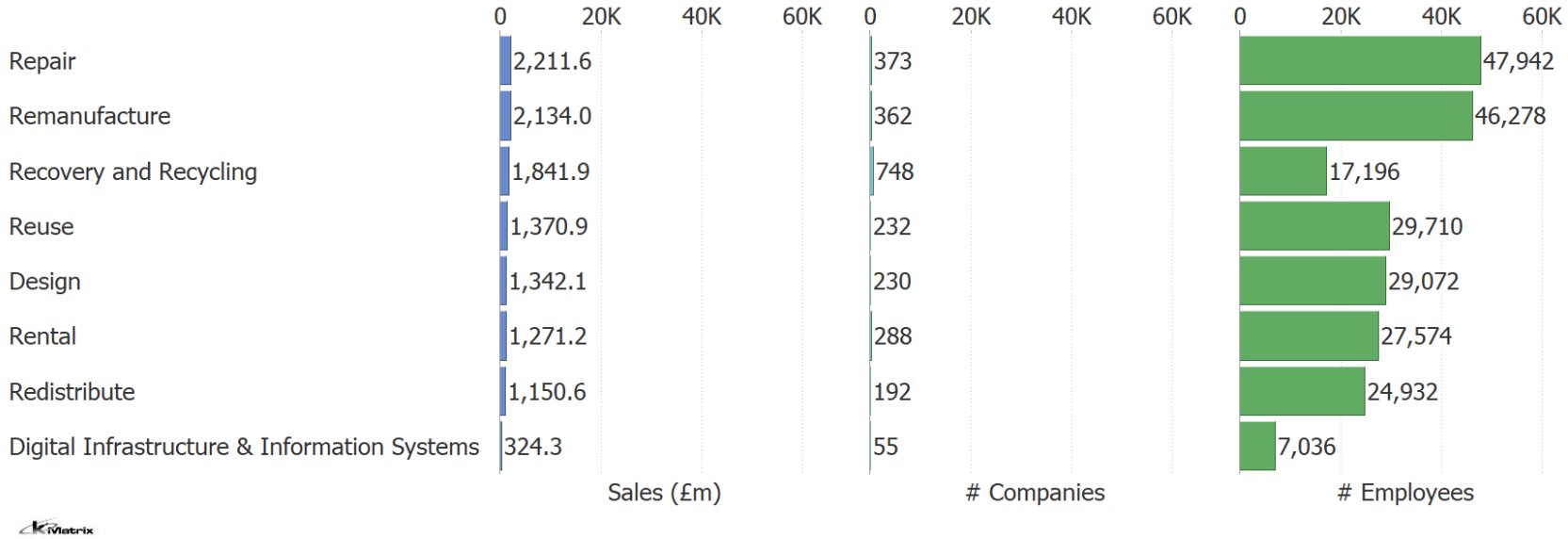
London's Circular Economy employment in 2024/25 was 229,740, up from 228,863 in 2022/23.

Annual employment growth in London's Circular Economy was 0.2% from 2022/23 to 2023/24, and 0.2% from 2023/24 to 2024/25. In comparison UK employment growth in Circular Economy was 0.4% and 0.4% respectively.

2.2.2 Circular Economy at Level 2

The analysis in this section of the report focuses on the Level 2 split of Circular Economy in London for each of the last three years.

Figure 2.10: Sales, Companies and Employees 2024/25 in £m (Level 2)



The Circular Economy sector is split into eight Level 2 sub-sectors, of which three account for 53% of sales, 60% of Companies and 48% of Employees (Figure 2.10). These three are made up of Repair 19% of sales (19% in 2022/23), Remanufacture 18% (18% in 2022/23) and Recovery & Recycling 16% (15% in 2022/23).

Table 2.1: London and UK Total GDP Compared to Circular Economy Level 2 Sales 2023/24 – sorted by size of London's Sub-sectors

Level 2 Sub-sector	London's Circular Economy Sales 2023/24	Circular Economy as a % of London's Total GDP	Sub-sector Proportion	UK Circular Economy Sales 2023/24	Circular Economy as a % of UK's Total GDP	Sub-sector Proportion
Repair	£2,154.6m	0.35%	19.0%	8,968.4	0.33%	17.0%
Remanufacture	£2,079.0m	0.34%	18.4%	8,639.6	0.32%	16.4%
Recovery and Recycling	£1,761.5m	0.29%	15.6%	13,195.1	0.49%	25.0%
Reuse	£1,335.2m	0.22%	11.8%	5,550.2	0.21%	10.5%
Design	£1,307.3m	0.21%	11.6%	5,457.4	0.20%	10.3%
Rental	£1,238.6m	0.20%	10.9%	5,132.8	0.19%	9.7%
Redistribute	£1,120.5m	0.18%	9.9%	4,473.3	0.17%	8.5%
Digital Infrastructure & Information Systems	£315.9m	0.05%	2.8%	1,318.6	0.05%	2.5%
Total	**£11,312.5m**	**1.83%**	**100.0%**	**52,735.6**	**1.96%**	**100.0%**

London's 2023/24 Total Gross Domestic Product was £617,916m and the UK's Total Gross Domestic Product was £2,689,853m. London's total GPD and UK's Total GDP values are from the ONS[4] and 2023/24 sector data was used due to lag in data from the ONS.

Sales have been compared with GDP to give an indication of the scale and significance of the sector relative to the whole local economy. Table 2.1 shows that in 2023/24 London's Circular Economy sector contributed a slightly smaller proportion of GDP than the national average, with 1.83% for London compared with 1.96% for the UK.

Within London's eight Level 2 sub-sectors, six contributed a larger proportion of GDP than the national average: Repair with 0.35% compared with 0.33% for the UK; Remanufacture with 0.34% compared with 0.32% for the UK; Reuse with 0.22% compared with 0.21% for the UK; Design with 0.21% compared with 0.20% for the UK; Rental with 0.20% compared with 0.19% for the UK; and Redistribute with 0.18% compared with 0.17% for the UK. Digital Infrastructure & Information Systems contributed the same 0.05%

[4] https://www.ons.gov.uk/economy/grossdomesticproductgdp/datasets/regionalgrossdomesticproductlocalauthorities

as the UK. Only one sub-sector contributed a significantly smaller proportion, Recovery & Recycling with 0.29% compared with 0.49% for the UK.

Table 2.2: London and UK Business Base Compared to Circular Economy Level 2 Companies 2024/25

Level 2 Sub-sector	London's Circular Economy Companies 2024/25	Circular Economy as a % of London's Total Companies	Sub-sector Proportion	UK Circular Economy Companies 2024/25	Circular Economy as a % of UK Total Companies	Sub-sector Proportion
Recovery and Recycling	748	0.14%	30.2%	5,659	0.21%	44.1%
Repair	373	0.07%	15.1%	1,554	0.06%	12.1%
Remanufacture	362	0.07%	14.6%	1,505	0.06%	11.7%
Rental	288	0.05%	11.6%	1,191	0.05%	9.3%
Reuse	232	0.04%	9.4%	963	0.04%	7.5%
Design	230	0.04%	9.3%	958	0.04%	7.5%
Redistribute	192	0.04%	7.8%	767	0.03%	6.0%
Digital Infrastructure & Information Systems	55	0.01%	2.2%	229	0.01%	1.8%
Total	**2,479**	**0.47%**	**100.0%**	**12,826**	**0.48%**	**100.0%**

The total number of enterprises in London in 2024 was 530,815 and the total number of enterprises in the UK in 2024 was 2,645,840. London's economically active people and UK's economically active people values are from Nomis[5].

Table 2.2 shows that in 2024/25 London's Circular Economy sector Companies contributed a similar proportion to the number of Total Enterprises to the national average, with 0.47% for London compared with 0.48% for the UK.

Within London's eight Level 2 sub-sectors, three contributed a slightly higher proportion of Companies than the national average: Repair with 0.07% compared with 0.06% for the UK; Remanufacture with 0.07% compared with 0.06% for the UK; Redistribute with 0.04% compared with 0.03 for the UK. Only one sub-sector contributed a significantly smaller proportion, Recovery & Recycling with 0.14% compared with 0.21% for the UK.

[5] https://www.nomisweb.co.uk/reports/lmp/gor/2013265927/subreports/nrhi_time_series/report.aspx?

Table 2.3: London and UK Economically Active People Compared to Circular Economy Level 2 Employment 2024/25

Level 2 Sub-sector	London's Circular Economy Employees 2024/25	Circular Economy as a % of London's Total Economically Active People	Sub-sector Proportion	UK Circular Economy Employees 2024/25	Circular Economy as a % of UK Total Economically Active People	Sub-sector Proportion
Repair	47,942	0.96%	20.9%	199,446	0.57%	20.1%
Remanufacture	46,278	0.92%	20.1%	192,490	0.55%	19.4%
Reuse	29,710	0.59%	12.9%	123,393	0.35%	12.4%
Design	29,072	0.58%	12.7%	121,246	0.35%	12.2%
Rental	27,574	0.55%	12.0%	113,995	0.33%	11.5%
Redistribute	24,932	0.50%	10.9%	99,458	0.29%	10.0%
Recovery and Recycling	17,196	0.34%	7.5%	113,846	0.33%	11.5%
Digital Infrastructure & Information Systems	7,036	0.14%	3.1%	29,345	0.08%	3.0%
Total	**229,740**	**4.58%**	**100.0%**	**993,220**	**2.85%**	**100.0%**

The total number of economically active people in London in 2024 was 5,019,000 and the total number of economically active people in the UK in 2024 was 34,872,000. London's economically active people and UK's economically active people values are from Nomis[6].

Table 2.3 shows that in 2024/25 London's Circular Economy sector Employees contributed a larger proportion to the number of Economically Active People than the national average, with 4.58% for London compared with 2.85% for the UK.

Within London's eight Level 2 sub-sectors, six contributed a larger proportion of Employees than the national average: Repair with 0.96% compared with 0.57% for the UK; Remanufacture with 0.92% compared with 0.55% for the UK; Reuse with 0.59% compared with 0.35% for the UK; Design with 0.58% compared with 0.35% for the UK; Rental with 0.55% compared with 0.33% for the UK; and Redistribute with 0.50% compared with 0.29% for the UK.

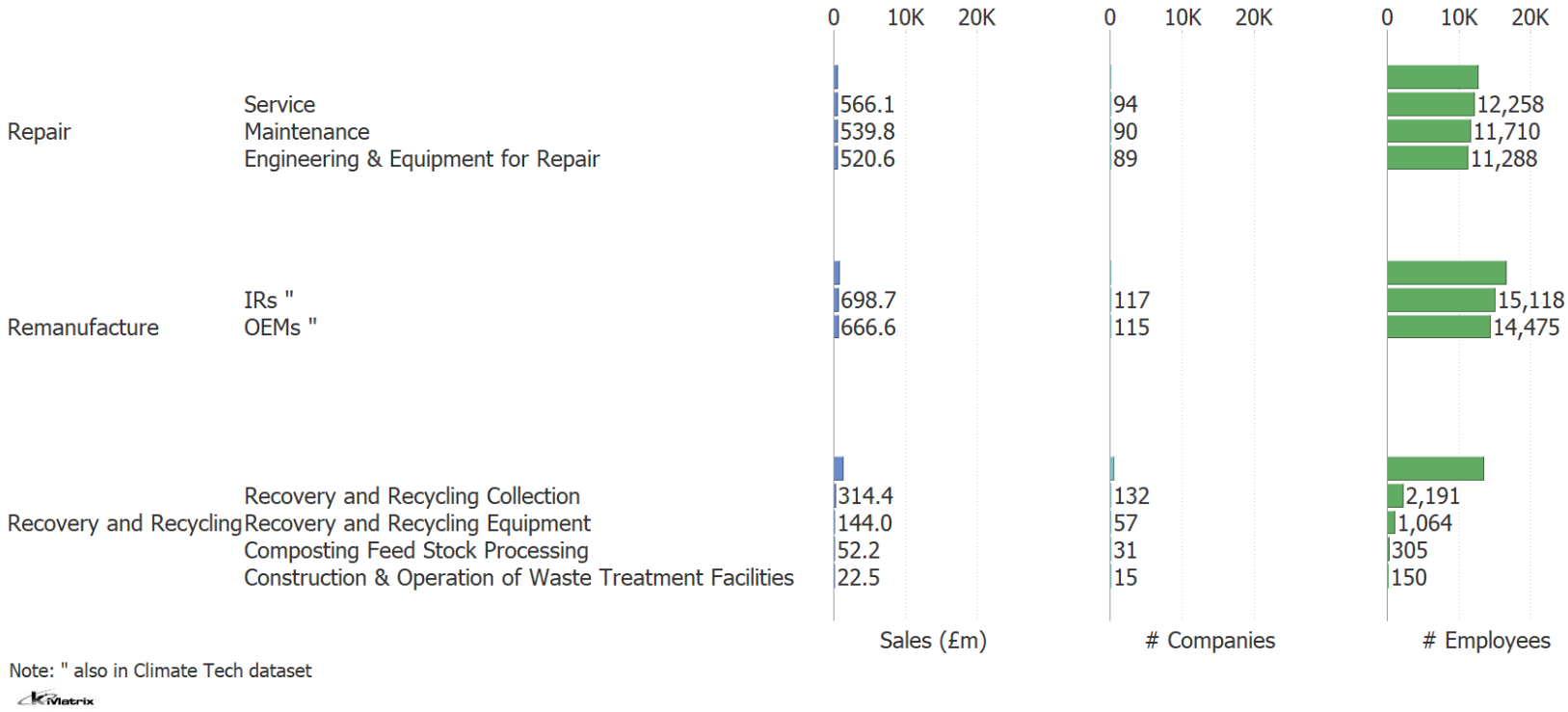
[6] https://www.nomisweb.co.uk/reports/lmp/gor/2013265927/subreports/nrhi_time_series/report.aspx?

2.2.3 Circular Economy Level 3 Sub-sectors

In this section we look at the Circular Economy Level 2 sub-sectors split into their Level 3 sub-sectors. For reference, sub-sectors marked with " are also present in the Climate Tech dataset (Section 1). Those sub-sectors which have the same sub-sector heading as LCEGS but do not have an * mark, have been altered from the LCEGS definition. Appendix 1 includes definitions for sub-sectors within each section.

All charts in this section are to the same scale, to enable size comparison between graphs for all sub-sectors.

Figure 2.11: Sales in £m, Companies and Employees 2024/25 (Level 3) – sub-sector group 1



Repair is further sub-divided into four sub-sectors, each holding between 24-27% of sales, companies, and employees in 2024/25 (and in 2022/23), (Figure 2.11).

All four of these sub-sectors sales grew between 2022/23 and 2024/25: Upgrade and Alteration sales from £562m to £585m; companies from 96 to 101; while employees contracted from 12,689 to 12,685; Service sales from £543m to £566m; companies from 90 to 94; and employees from 12,253 to 12,258; Maintenance sales from £519m to £540m; companies from 87 to 90; and employees from 11,678 to 11,710; and Engineering & Equipment for Repair sales from £499m to £521m; companies from 95 to 89; while employees contracted from 11,309 to 11,288.

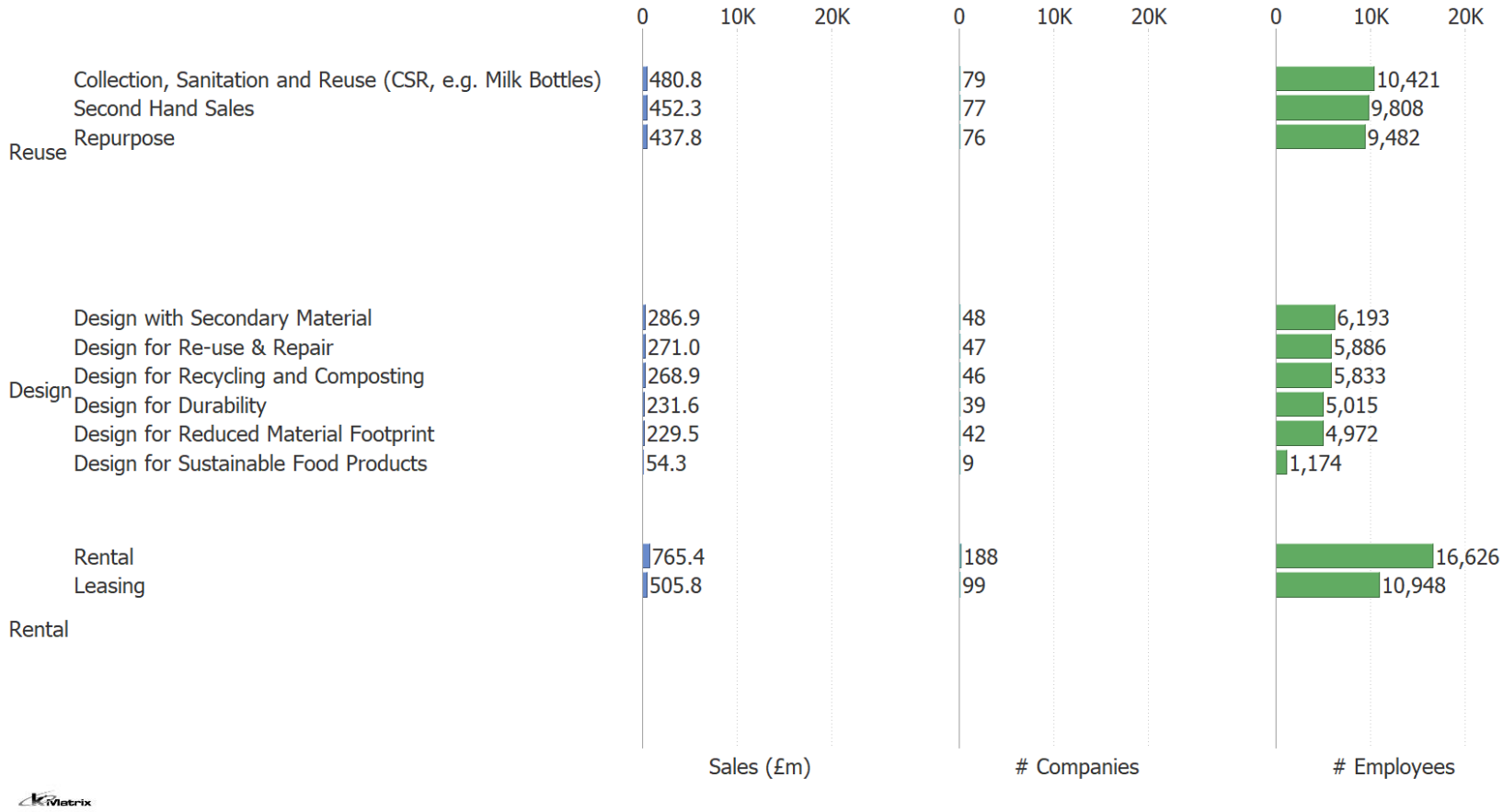
Remanufacture is further sub-divided into three sub-sectors, each holding between 31-36% of sales, companies, and employees in 2024/25 (and in 2022/23).

All three of these sub-sectors grew between 2022/23 and 2024/25: Remanufacture Engineering and Equipment sales from £737m to £769m; companies from 124 to 130; and employees from 16,673 to 16,685; Remanufacture by Independent Remanufacturers (IRs) sales from £670m to £699m; and companies from 112 to 117; although employment fell from 15,185 to 15,118; Remanufacture by Original Equipment Manufacturers/remanufacturers (OEMs) sales from £640m to £667m; companies from 110 to 115; and employees from 14,467 to 14,475.

Recovery & Recycling is further sub-divided into five sub-sectors, of which two account for 86% of sales (86% in 2022/23), 84% of companies (84% in 2022/23), and 88% of employees (90% in 2022/23). These are Recovery & Recycling Process 52% (53% in 2022/23), and Recovery & Recycling Collection 34% (34% in 2022/23).

Both of these sub-sectors grew between 2022/23 and 2024/25: Recovery & Recycling Process sales from £887m to £964m; companies from 358 to 391; and employees from 10,377 to 10,783; and Recovery & Recycling Collection sales from £567m to £628m; companies from 214 to 237; and employees from 4,158 to 4,604.

Figure 2.12: Sales in £m, Companies and Employees 2024/25 (Level 3) – sub-sector group 2



Reuse is further sub-divided into three sub-sectors, each holding between 32-35% of sales, companies, and employees in 2024/25 (and in 2022/23), (Figure 2.12).

Each of these three sub-sectors grew between 2022/23 and 2024/25: Collection, Sanitation and Reuse (e.g. milk bottles) sales from £460m to £481m; companies from 76 to 79; and employees from 10,392 to 10,421; Second Hand Sales from £434m to £452m; companies from 74 to 77; while employees contracted from 9,830 to 9,808; and Repurpose sales from £420m to £438m; companies from 73 to 76; while employees contracted from 9,500 to 9,482.

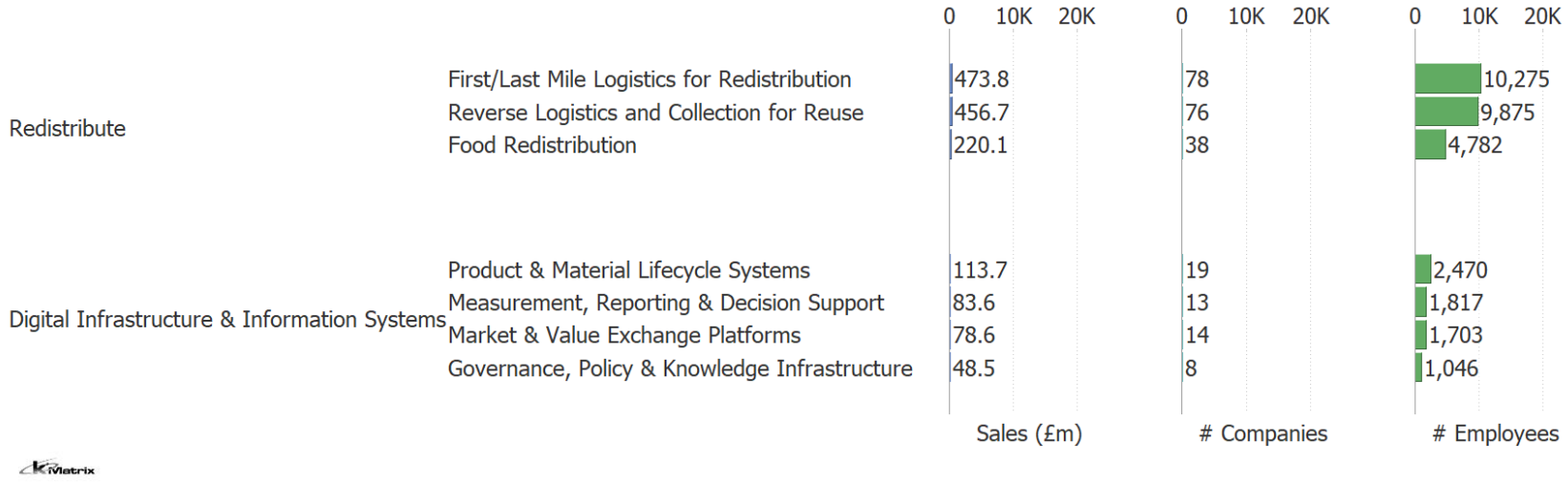
Design is further sub-divided into six sub-sectors, of which three account for 62% of sales (62% in 2022/23), 61% of companies (61% in 2022/23), and 62% of employees (62% in 2022/23). These are Design with Secondary Material 21% (21% in 2022/23), Design for Re-use & Repair 20% (20% in 2022/23), and Design for Recycling and Composting 20% (20% in 2022/23).

All three of these sub-sectors grew between 2022/23 and 2024/25: Design with Secondary Material sales from £275m to £287m; companies from 46 to 48; although employees contracted from 6,220 to 6,193; Design for Re-use & Repair sales from £260m to £271m; companies from 45 to 47; and employees from 5,865 to 5,886; and Design for Recycling and Composting sales from £258m to £269m; companies from 44 to 46; and employees from 5,830 to 5,833.

Rental further sub-divided into two sub-sectors, Rental accounts for 60% of sales (60% in 2022/23), 65% of companies (65% in 2022/23), and 60% of employees (60% in 2022/23), and Leasing accounts for 40% of sales (40% in 2022/23), 35% of companies (35% in 2022/23), and 40% of employees (40% in 2022/23).

Both of these sub-sectors grew between 2022/23 and 2024/25: Rental sales from £735m to £765m; companies from 181 to 188; and employees from 16,618 to 16,626; and Leasing sales from £486m to £506m; companies from 95 to 99; while employees contracted from 10,981 to 10,948.

Figure 2.13: Sales in £m, Companies and Employees 2024/25 (Level 3) – sub-sector group 3



Redistribute is further sub-divided into three sub-sectors, of which two account for 81% of sales (81% in 2022/23), 80% of companies (80% in 2022/23), and 81% of employees (81% in 2022/23), (Figure 2.13). These are First/Last Mile Logistics for Redistribution 41% (41% in 2022/23), and Reverse Logistics and Collection for Reuse 40% (40% in 2022/23).

Both of these sub-sectors grew between 2022/23 and 2024/25:

First/Last Mile Logistics for Redistribution sales from £455m to £474m; companies from 75 to 78; and employees from 10,253 to 10,275; and Reverse Logistics and Collection for Reuse sales from £438m to £457m; companies from 73 to 76; while employees contracted from 9,924 to 9,875.

Digital Infrastructure & Information Systems is further sub-divided into four sub-sectors, of which three account for 85% of sales (85% in 2022/23), 86% of companies (86% in 2022/23), and 85% of employees (85% in 2022/23). These are Product & Material Lifecycle Systems 35% (35% in 2022/23), Measurement, Reporting & Decision Support 26% (26% in 2022/23), and Market & Value Exchange Platforms 24% (24% in 2022/23).

All three of these sub-sectors grew between 2022/23 and 2024/25:

Product & Material Lifecycle Systems sales from £109m to £114m; companies from 18 to 19; while employees contracted from 2,475 to 2,470; Measurement, Reporting & Decision Support sales from £80m to £84m; companies remained at 13; and employees from 1,815 to 1,817; and Market & Value Exchange Platforms sales from £75m to £79m; companies from 44 to 46; and employees from 1,699 to 1,703.

2.2.4 London's Circular Economy Historic Growth

In Section 2.1 annual growth in London's Circular Economy sales, employment and companies was compared with growth in the UK's Circular Economy sector as a whole for 2022/23 to 2024/25. This section includes summaries of how sub-sector growth in London compares with the UK. A detailed table of Lonon's annual growth by sub-sector is available in the Companion Dataset.

While annual growth in the Circular Economy sector as a whole has varied between 0.2% and 3.2% for each of the three parameters there is considerable variation in growth between the Level 3 sub-sectors. This reflects London's strengths and its share of these sub-sector markets, all of which are growing at different rates.

The higher growth rates for sub-sectors in London are a reflection of higher growth rates in the UK market and the opportunities that are being created by drivers of growth including policy, regulation and consumer choices. Most sub-sectors in London have growth rates within two percentage points of the UK growth rates, the six main exceptions of large sub-sectors where London sales growth was stronger than the UK for at least one year are shown in Table 2.4 and are:

- Design for Reduced Material Footprint, where the London sales growth rates were 1.5% between 2022/23 and 2023/24 and 2.6% between 2023/24 and 2024/25 and the UK growth rates were 1.0% between 2022/23 and 2023/24 and 2.9% between 2023/24 and 2024/25
- Design for Sustainable Food Products, where the London sales growth rates were 1.5% between 2022/23 and 2023/24 and 2.6% between 2023/24 and 2024/25 and the UK growth rates were 3.0% between 2022/23 and 2023/24 and 3.3% between 2023/24 and 2024/25
- Composting Feedstock, where the London sales growth rates were 5.2% between 2022/23 and 2023/24 and 4.9% between 2023/24 and 2024/25 and the UK growth rates were 3.0% between 2022/23 and 2023/24 and 3.3% between 2023/24 and 2024/25
- Construction & Operation of Waste Treatment Facilities, where the London sales growth rates were 5.4% between 2022/23 and 2023/24 and 5.1% between 2023/24 and 2024/25 and the UK growth rates were 1.8% between 2022/23 and 2023/24 and 1.9% between 2023/24 and 2024/25
- Recovery and Recycling Equipment, where the London sales growth rates were 5.5% between 2022/23 and 2023/24 and 5.1% between 2023/24 and 2024/25 and the UK growth rates were 4.2% between 2022/23 and 2023/24 and 4.6% between 2023/24 and 2024/25
- Engineering & Equipment for Repair, where the London sales growth rates were 1.5% between 2022/23 and 2023/24 and 2.7% between 2023/24 and 2024/25 and the UK growth rates were 1.7% between 2022/23 and 2023/24 and 2.0% between 2023/24 and 2024/25

Table 2.4: Sub-sectors where London's Circular Economy Sales growth was stronger than the UK for at least one year between 2022/23 to 2024/25

Level 3 sub-sector	London Sales Growth 2022/23 to 2023/24	UK Sales Growth 2022/23 to 2023/24	London Sales Growth 2023/24 to 2024/25	UK Sales Growth 2023/24 to 2024/25
Design for Reduced Material Footprint	1.5%	1.0%	2.6%	2.9%
Design for Sustainable Food Products	1.5%	1.8%	2.6%	2.1%
Composting Feedstock	5.2%	3.0%	4.9%	3.3%
Construction & Operation of Waste Treatment Facilities	5.4%	1.8%	5.1%	1.9%

Recovery and Recycling Equipment	5.5%	4.2%	5.1%	4.6%
Engineering & Equipment for Repair	1.5%	1.7%	2.7%	2.0%

The three main exceptions where London growth was weaker than the UK for at least one year are shown in Table 2.5 and are:

- Recovery and Recycling Collection, where the London sales growth rates were 5.5% between 2022/23 and 2023/24 and 5.0% between 2023/24 and 2024/25 and the UK growth rates were 5.3% between 2022/23 and 2023/24 and 5.9% between 2023/24 and 2024/25
- Recovery and Recycling Process, where the London sales growth rates were 4.4% between 2022/23 and 2023/24 and 4.4% between 2023/24 and 2024/25 and the UK growth rates were 5.5% between 2022/23 and 2023/24 and 6.3% between 2023/24 and 2024/25
- Rental, where the London sales growth rates were 1.5% between 2022/23 and 2023/24 and 2.6% between 2023/24 and 2024/25 and the UK growth rates were 2.5% between 2022/23 and 2023/24 and 2.4% between 2023/24 and 2024/25

Table 2.5: Sub-sectors where London's Circular Economy Sales growth was weaker than the UK for at least one year between 2022/23 to 2024/25

Level 2 sub-sector	London Sales Growth 2022/23 to 2023/24	UK Sales Growth 2022/23 to 2023/24	London Sales Growth 2023/24 to 2024/25	UK Sales Growth 2023/24 to 2024/25
Recovery and Recycling Collection	5.5%	5.3%	5.0%	5.9%
Recovery and Recycling Process	4.4%	5.5%	4.4%	6.3%
Rental	1.5%	2.5%	2.6%	2.4%

Growth in London sub-sectors across the 3-year reporting period is generally within two percentage points of growth in the UK. The seven exceptions of large sub-sectors where London growth is more than half a percentage point stronger than the UK are shown in Table 2.6 and are:

- Design for Durability, where the London sales growth rate was 4.3% between 2022/23 and 2024/25 and the UK growth rate was 3.7% between 2022/23 and 2024/25
- Measurement, Reporting & Decision Support (DI&IS), where the London sales growth rate was 4.3% between 2022/23 and 2024/25 and the UK growth rate was 3.5% between 2022/23 and 2024/25

- Product & Material Lifecycle Systems (DI&IS), where the London sales growth rate was 4.2% between 2022/23 and 2024/25 and the UK growth rate was 3.7% between 2022/23 and 2024/25
- Composting Feed Stock, where the London sales growth rate was 10.4% between 2022/23 and 2024/25 and the UK growth rate was 6.4% between 2022/23 and 2024/25
- Construction & Operation of Waste Treatment Facilities, where the London sales growth rate was 10.7% between 2022/23 and 2024/25 and the UK growth rate was 3.7% between 2022/23 and 2024/25
- Recovery and Recycling Equipment, where the London sales growth rate was 10.9% between 2022/23 and 2024/25 and the UK growth rate was 9.0% between 2022/23 and 2024/25
- Engineering & Equipment for Repair, where the London sales growth rate was 4.3% between 2022/23 and 2024/25 and the UK growth rate was 3.8% between 2022/23 and 2024/25

Table 2.6: Sub-sectors where London's Circular Economy average Sales growth across the 3-year reporting period was stronger than the UK between 2022/23 to 2024/25

Level 2 sub-sector	London Sales Growth 2022/23 to 2024/25	UK Sales Growth 2022/23 to 2024/25
Design for Durability	4.3%	3.7%
Measurement, Reporting & Decision Support (DI&IS)	4.3%	3.5%
Product & Material Lifecycle Systems (DI&IS)	4.2%	3.7%
Composting Feed Stock	10.4%	6.4%
Construction & Operation of Waste Treatment Facilities	10.7%	3.7%
Recovery and Recycling Equipment	10.9%	9.0%
Engineering & Equipment for Repair	4.3%	3.8%

The three exceptions where London growth is more than half a percentage point weaker than the UK are shown in Table 2.7 and are:

- Recovery and Recycling Collection, where the London sales growth rate was 10.8% between 2022/23 and 2024/25 and the UK growth rate was 11.5% between 2022/23 and 2024/25

- Recovery and Recycling Process, where the London sales growth rate was 9.0% between 2022/23 and 2024/25 and the UK growth rate was 12.2% between 2022/23 and 2024/25
- Rental, where the London sales growth rate was 4.2% between 2022/23 and 2024/25 and the UK growth rate was 5.0% between 2022/23 and 2024/25

Table 2.7: Sub-sectors where London's Circular Economy average Sales growth across the 3-year reporting period was weaker than UK between 2022/23 to 2024/25

Level 2 sub-sector	London Sales Growth 2022/23 to 2024/25	UK Sales Growth 2022/23 to 2024/25
Recovery and Recycling Collection	10.8%	11.5%
Recovery and Recycling Process	9.0%	12.2%
Rental	4.2%	5.0%

The highest levels of actual growth in London Circular Economy occurred Recovery and Recycling Equipment (Recovery and Recycling); Recovery and Recycling Collection (Recovery and Recycling); Construction & Operation of Waste Treatment Facilities (Recovery and Recycling); Composting Feed Stock (Recovery and Recycling); and Recovery and Recycling Process (Recovery and Recycling) between 2021/22 and 2023/24.

2.2.5 London's Circular Economy Strengths and Weaknesses

By overlaying the sales for each sub-sector as a proportion of the UK market, the impact of stronger or weaker sales growth can be examined more closely. Figure 2.14 below shows how London compares with the UK for the largest 15 Level 3 sub-sectors, with regards to size of market and growth across three-years 2022/23 to 2024/25.

The x-axis represents the London/UK sales proportionality factor, which was calculated for each sub-sector by dividing the London sales a percentage of the UK, by 21.4%. This proportionality factor demonstrates where London holds a larger or smaller share of the UK market than would be expected, where:

- 1 = 21.4% of the UK market
- >1 = larger than 21.4% share

- <1 = smaller than 21.4% share

The y-axis represents the growth rate of London's Level 3 sub-sectors compared with the UK. This was calculated by dividing the 3-year growth rate of London by the average UK growth rate. This growth rate factor demonstrates which sub-sectors have a stronger or slower growth rate than the UK, where:

- 1 = the UK growth rate
- >1 = stronger than the UK average growth
- <1 = weaker than UK growth

The graph is split into four quadrants along 1 on each axis, with sub-sectors in each demonstrating:

- Top right = larger market share than expected and stronger growth than the UK average
- Bottom Right = larger market share than expected, but weaker growth than the UK average
- Top left = smaller market share than expected, but stronger growth than the UK average
- Bottom left = smaller market share than expected and weaker growth than the UK average

The bubbles represent the largest 15 Level 3 sub-sectors and are sized by 2023/24 sales £m, illustrating their relative sizes.

Figure 2.14: London/UK Sales proportionality factor vs. London/UK Growth factor of Level 2 Sub-sectors – Bubbles Sized by Sales £m

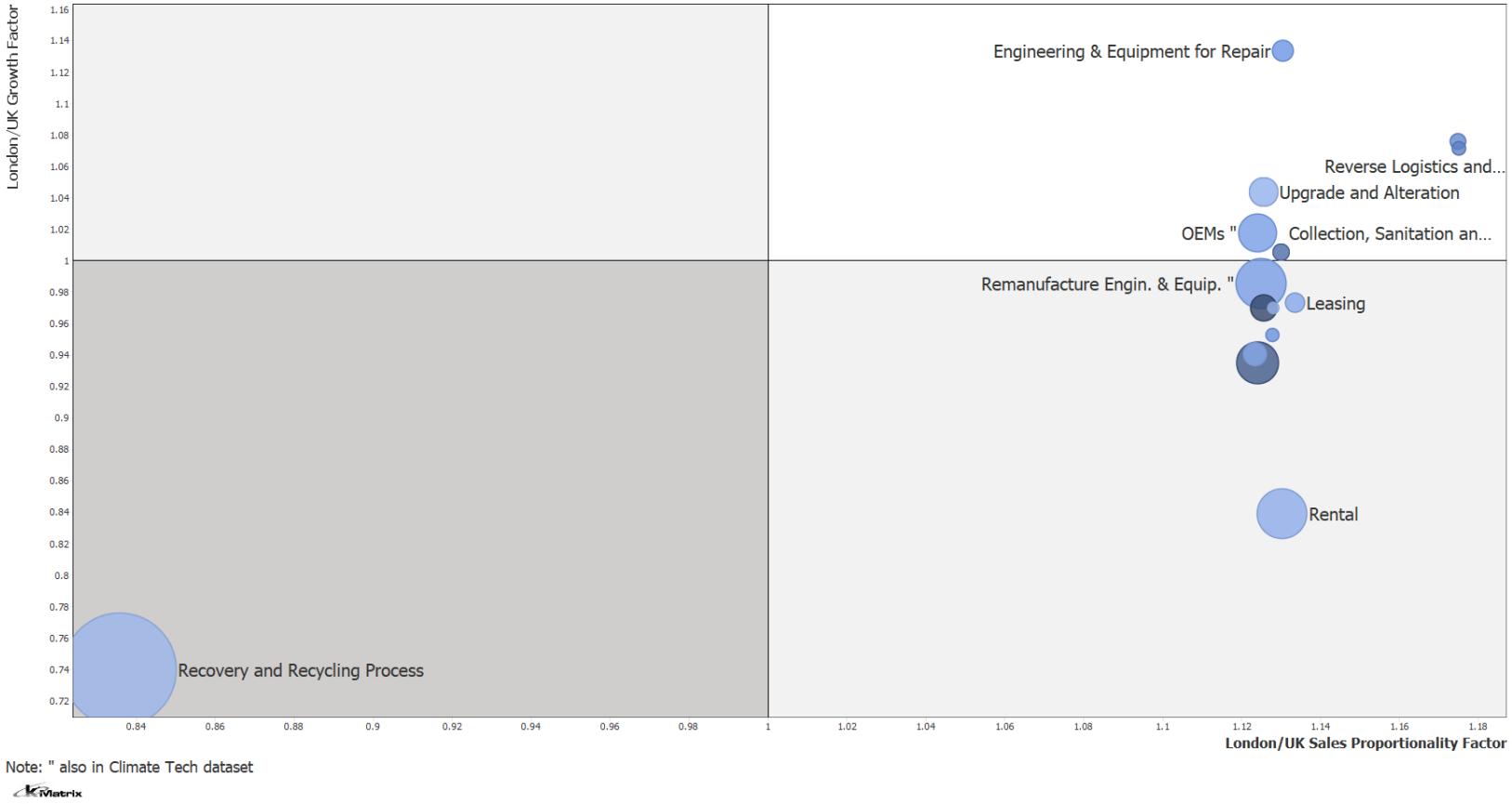
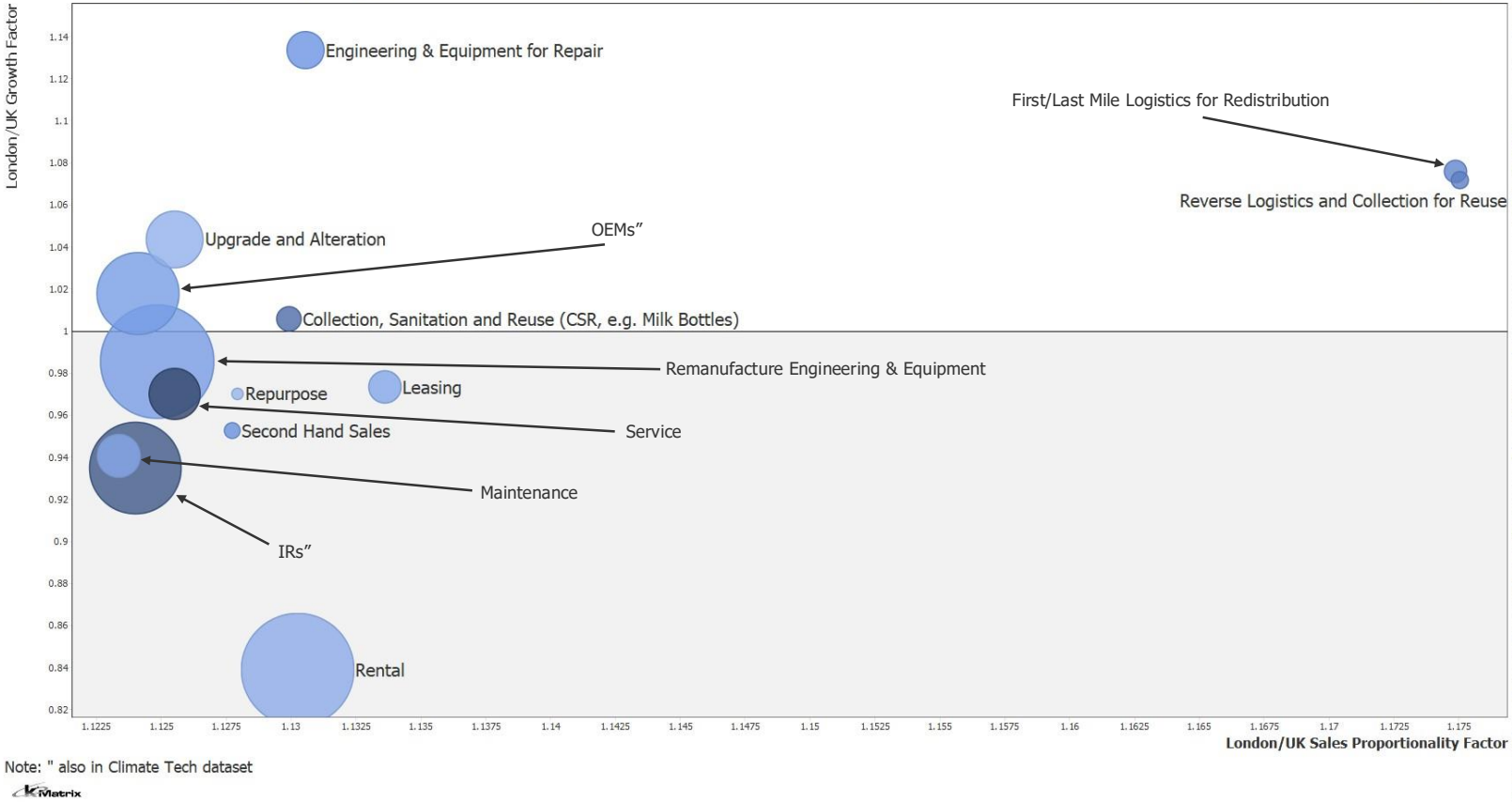


Figure 2.14 clearly illustrates the strong growth of Engineering & Equipment for Repair which grew by 4.3% compared with the UK growth of 3.8%. Recovery & Recycling Process dominates the graph through its size, however it has a smaller proportion of the UK, with 18% of the UK market, compared with a Circular Economy average of 21.4%, and weaker growth of 9.0% compared with a UK average for Recovery & Recycling Process of 12.2%. Note: hard to read labels are identifiable in Figure 2.15.

Figure 2.15 excludes Recovery & Recycling Process from the proportionality factor to enable analysis of the other sectors.

Figure 2.15: London/UK Sales proportionality factor (Excl. Recovery & Recycling Process) vs London/UK Growth factor of Level 2 Sub-sectors, Bubbles Sized by Sales £m



When Recovery & Recycling Process is excluded, First/Last Mile Logistics for Redistribution and Reverse Logistics and Collection for Reuse are clearly much larger than the sector average (both with 25% vs the 21% average). Rental is also proportionally larger with 24.4%, but with slower growth than the UK (London 4.2% vs UK 5.0%).

2.2.6 London's Circular Economy Forecast Growth

Table 2.8 shows sales growth forecasts (annual percentage growth from the previous year) for 2025/26 through to 2029/30. The growth rates refer to the growth expected during the financial year listed. Forecast growth for the majority of sub-sectors is generally consistent with levels of historical growth, but as forecasts stretch out beyond 2029/30, they inevitably tend to be less robust. The growth rates would be applied to the year indicated, so for example, the 2025/26 growth rate indicates the expected growth between the 2024/25 and 2025/26 sales figures.

Table 2.8: London's Circular Economy Forecast Sales (£m) and Growth 2025/26 to 2029/30

Level 1	Level 2	Sales £m 2024/25	Forecast growth %	Forecast Sales £m 2025/26	Forecast growth %	Forecast Sales £m 2026/27	Forecast growth %	Forecast Sales £m 2027/28	Forecast growth %	Forecast Sales £m 2028/29	Forecast growth %	Forecast Sales £m 2029/30
Design	Design for Durability	231.6	6.6%	246.8	9.2%	269.5	10.6%	298.1	12.3%	334.7	14.3%	382.5
	Design for Recycling and Composting	268.9	6.7%	287.0	9.6%	314.4	11.1%	349.3	12.8%	394.1	14.9%	452.6
	Design for Reduced Material Footprint	229.5	12.9%	259.1	8.8%	281.9	10.2%	310.6	11.8%	347.2	13.7%	394.7
	Design for Reuse & Repair	271.0	6.5%	288.7	9.2%	315.2	10.6%	348.6	12.3%	391.3	14.2%	446.7
	Design for Sustainable Food Products	54.3	6.7%	57.9	9.3%	63.3	10.9%	70.1	12.7%	79.0	14.6%	90.6
	Design with Secondary Material	286.9	6.8%	306.3	9.5%	335.5	11.0%	372.5	12.8%	420.1	14.9%	482.7
Digital Infrastructure & Information Systems	Governance, Policy & Knowledge Infrastructure	48.5	5.9%	51.4	8.2%	55.6	9.5%	60.9	11.0%	67.6	12.9%	76.3
	Market & Value Exchange Platforms	78.6	6.2%	83.5	8.8%	90.8	10.1%	99.9	11.5%	111.4	13.3%	126.2
	Measurement, Reporting & Decision Support	83.6	6.3%	88.8	8.7%	96.6	10.1%	106.3	11.7%	118.7	13.5%	134.7
	Product & Material Lifecycle Systems	113.7	6.4%	120.9	9.0%	131.8	10.4%	145.6	12.0%	163.1	13.8%	185.6
Re cov	Composting Feed Stock Processing	52.2	5.7%	55.1	6.1%	58.5	6.5%	62.3	7.0%	66.7	7.5%	71.7

	Construction & Operation of Waste Treatment Facilities	22.5	5.6%	23.7	6.1%	25.2	6.5%	26.8	7.0%	28.7	7.4%	30.8
	Recovery and Recycling Collection	314.4	5.7%	332.2	6.1%	352.4	6.5%	375.4	7.0%	401.7	7.5%	431.9
	Recovery and Recycling Equipment	144.0	5.7%	152.2	6.1%	161.6	6.6%	172.2	7.1%	184.4	7.6%	198.4
	Recovery and Recycling Process	1,308.9	5.7%	1,384.1	6.7%	1,476.2	7.3%	1,584.3	8.1%	1,712.4	9.0%	1,866.0
Redistribute	First/Last Mile Logistics for Redistribution	473.8	6.7%	505.7	9.4%	553.3	10.9%	613.4	12.5%	690.3	14.5%	790.6
	Food Redistribution	220.1	6.6%	234.6	9.2%	256.2	10.7%	283.6	12.4%	318.7	14.2%	364.1
	Reverse Logistics and Collection for Reuse	456.7	6.5%	486.3	9.1%	530.5	10.5%	586.3	12.2%	657.8	14.1%	750.6
Remanufacture	IRs "	698.7	6.4%	743.5	9.0%	810.6	10.5%	895.5	12.1%	1,004.1	14.0%	1,144.6
	OEMs "	666.6	6.3%	708.2	8.8%	770.4	10.2%	848.7	11.8%	948.7	13.6%	1,078.0
	Remanufacture Engin. & Equip. "	768.8	6.7%	820.0	9.4%	897.0	10.8%	993.9	12.4%	1,117.7	14.4%	1,278.8
Rental	Leasing	505.8	6.4%	538.5	9.1%	587.4	10.5%	649.0	12.1%	727.4	14.0%	829.1
	Rental	765.4	6.2%	812.9	8.7%	883.9	10.0%	972.3	11.6%	1,085.0	13.4%	1,230.7
Repair	Engineering & Equipment for Repair	520.6	6.3%	553.4	8.9%	602.4	10.2%	664.1	11.8%	742.6	13.6%	843.9
	Maintenance	539.8	6.5%	574.9	9.1%	627.2	10.5%	692.9	12.1%	776.5	14.0%	885.1
	Service	566.1	6.5%	603.1	9.2%	658.3	10.6%	728.2	12.3%	817.7	14.2%	933.7
	Upgrade and Alteration	585.1	6.4%	622.4	8.9%	677.9	10.3%	747.7	11.9%	836.7	13.7%	951.7
Reuse	Collection, Sanitation and Reuse (CSR, e.g. Milk Bottles)	480.8	6.7%	513.0	9.4%	561.2	10.9%	622.2	12.6%	700.5	14.5%	802.2
	Repurpose	437.8	6.5%	466.4	9.1%	509.0	10.5%	562.6	12.2%	631.3	14.2%	720.8
	Second Hand Sales	452.3	6.5%	481.7	9.2%	525.9	10.6%	581.4	12.2%	652.5	14.2%	745.0
	Total	**11,646.7**	6.5%	**12,402.4**	8.7%	**13,479.6**	10.0%	**14,824.8**	11.5%	**16,528.6**	13.3%	**18,720.4**

Note: “ also in Climate Tech dataset. Growth is between one year and the next

Table 2.8 show year-on-year growth is expected for all Level 2 sub-sectors, with sector sales forecast to increase from £11.6bn in 2024/25 to £18.7bn in 2029/30. Figure 2.16 shows the annual forecast growth for London’s Circular Economy to 2025/26-2029/30 based upon the values in Table 2.8. The growth rates refer to the growth expected during the financial year listed.

Figure 2.16: London’s Circular Economy Forecast Sales Growth 2024/25-2025/26 to 2028/29-2029/30

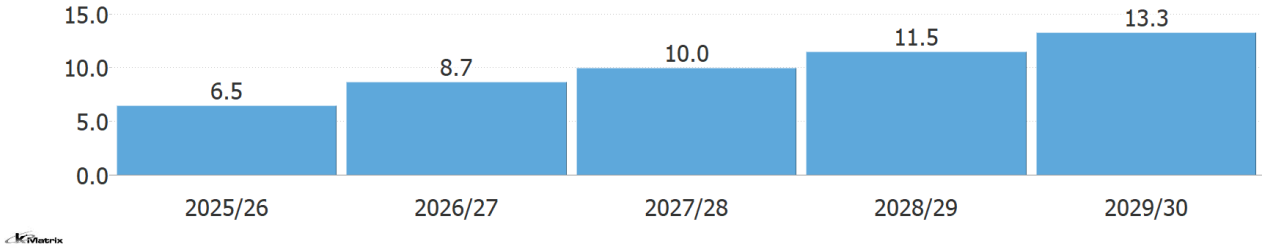


Figure 2.16 shows forecast growth for London’s Circular Economy, with consistent year-on-year growth predicted throughout the forecast period.

Figure 2.17: UK’s Circular Economy Forecast Sales Growth 2024/25-2025/26 to 2028/29-2029/30

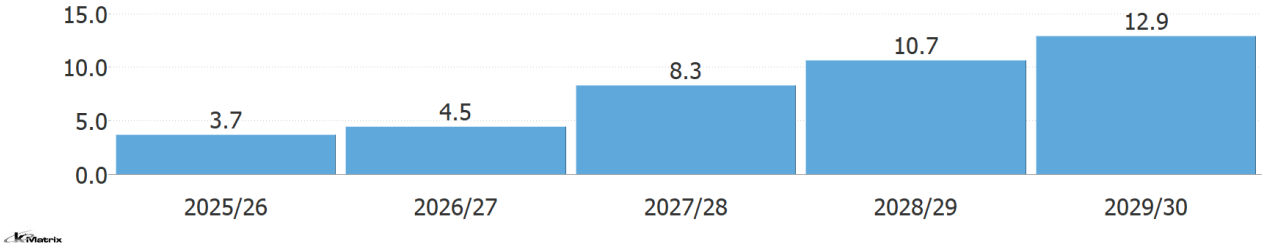


Figure 2.17 shows the annual growth forecast for the UK’s Circular Economy from 2025/26-2029/30 and illustrates that the forecast growth for London is expected to be stronger than the UK throughout the forecast period from 2025/26 to 2029/30.

Figure 2.18: London's and UK's Circular Economy year-on-year Sales Growth 2019//20-2020/21 to 2023/24-2024/25 and Forecast Sales Growth 2024/25-2025/26 to 2028/29-2029/30

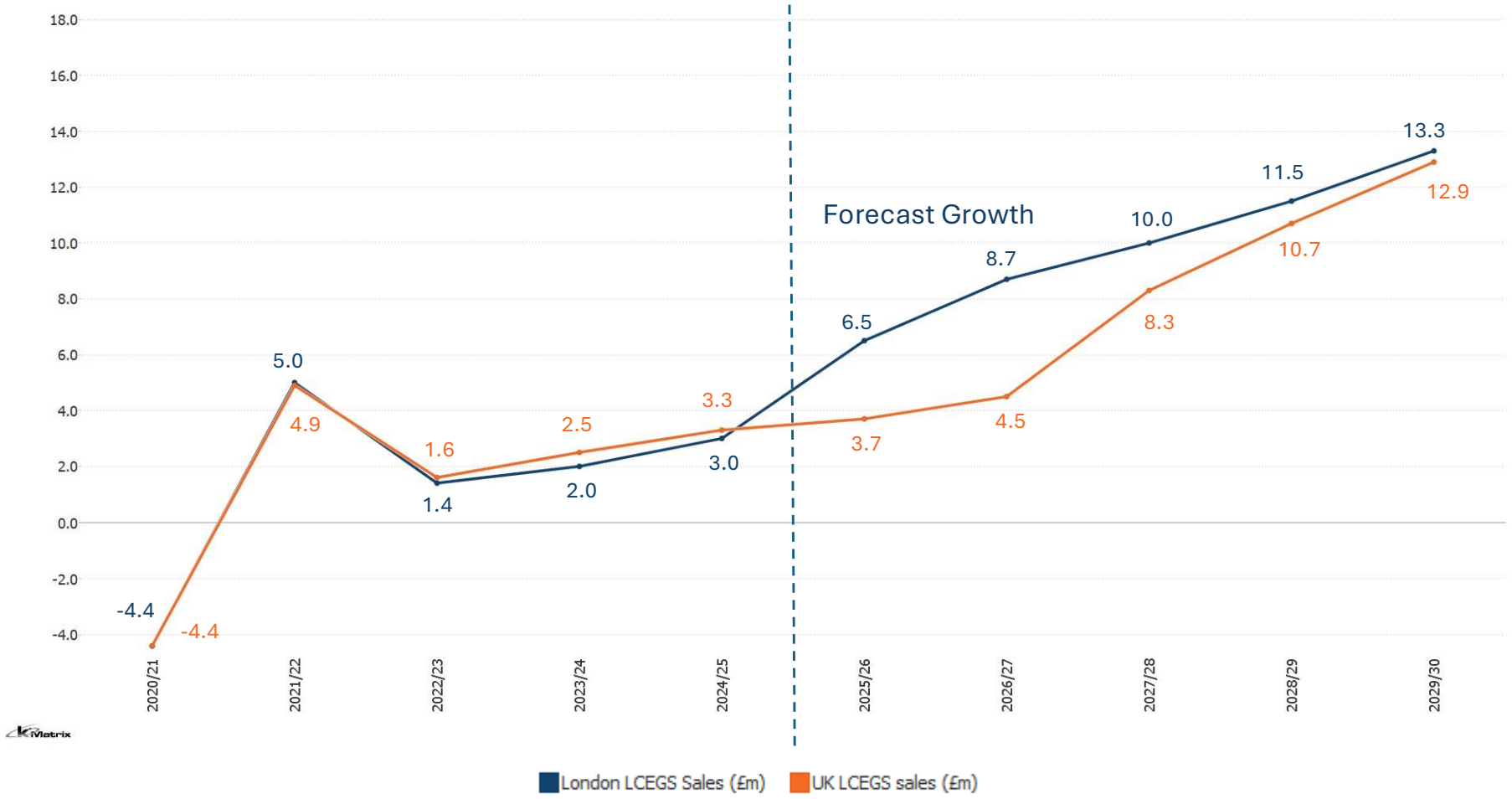
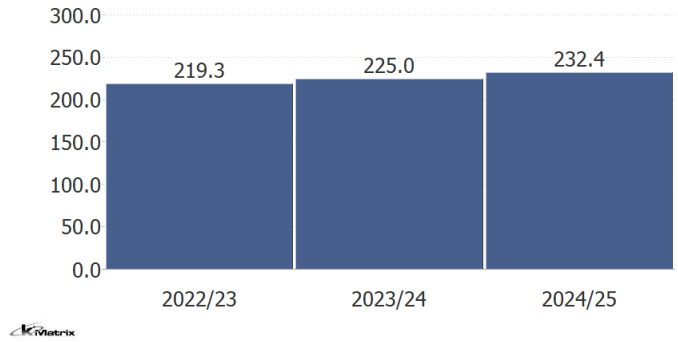


Figure 2.18 shows the timeline for year-on-year growth for the UK and London Sales for Circular Economy from 2020/21 to 2023/24-2024/25, combined with forecast growth to 2028/29-2029/30. London has seen similar or slower growth than the rest of the UK but is expected to have stronger growth than the UK average from 2025/26 to 2029/30.

2.2.7 London's Circular Economy Exports

This section of the report addresses London's Circular Economy Exports over the past two years when compared with UK totals and then identifies leading Circular Economy export products and services.

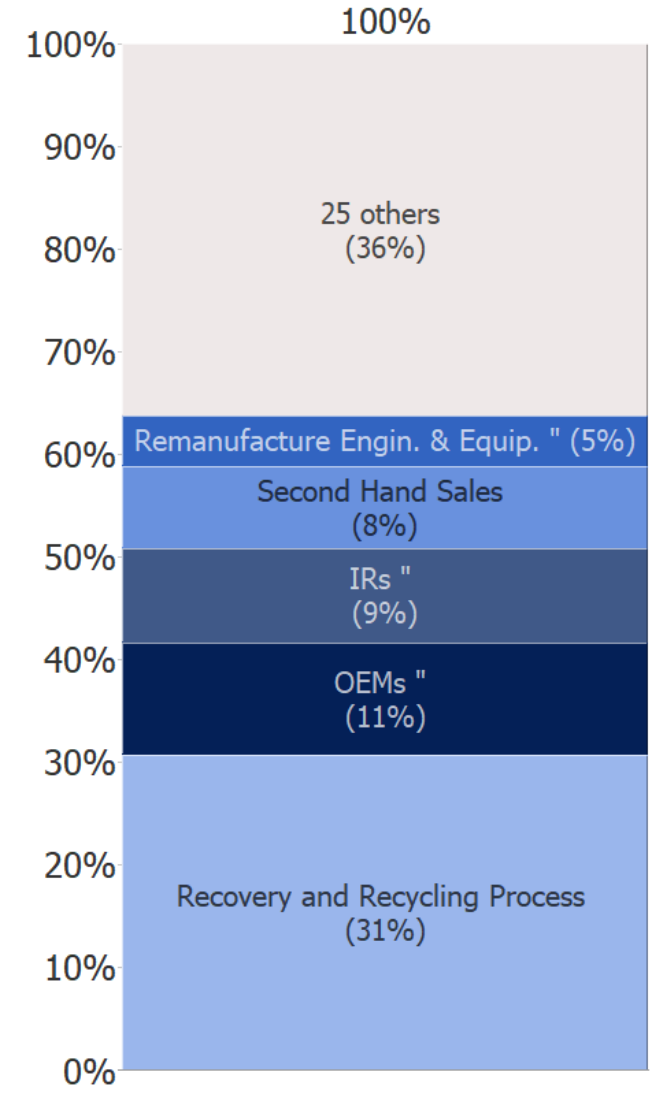
Figure 2.19: London's Circular Economy Exports (£m) 2022/23 to 2024/25



The value of London's Circular Economy Exports was £232m in 2024/25, up from £219m in 2022/23.

Growth was 2.6% from 2022/23 to 2023/24 and 3.3% from 2023/24 to 2024/25. This is compared to UK growth of approximately 4.5% and 4.6%, respectively.

Figure 2.20: London's Exports (%) by Sub-Sector 2024/25



Note: " also in Climate Tech dataset

London represented 19% of all UK Circular Economy exports in 2024/25 (19% in 2023/24). It is lower than London's 21% of overall UK Sales for that year.

Figure 2.20 shows the proportion of London Circular Economy exports by Level 3 sub-sector for 2024/25, with Recovery & Recycling 31% (31% in 2022/23); OEMs (Remanufacturing by Original Equipment Manufacturers) 11%; IRs (Remanufacturing by Independent Remanufacturers) 9%; Second Hand Sales 8%; and Remanufacture Engineering & Equipment 5% being the leading sub-sectors and accounting for 64% of all London Circular Economy exports (63% in 2022/23).

In Table 2.9 London's Circular Economy exports are shown by sub-sector for each of the three years of the report and have been expressed as a percentage of that sub-sector's overall Sales

Table 2.9: London's Circular Economy Exports as a % of Sales 2022/23 to 2024/25

		2022/23			2023/24			2024/25		
Level 2	**Level 3**	**Sales £m**	**Exports £m**	**Exports as a % of Sales**	**Sales £m**	**Exports £m**	**Exports as a % of Sales**	**Sales £m**	**Exports £m**	**Exports as a % of Sales**
Design	Design for Durability	222.2	6.9	3.1%	225.6	7.0	3.1%	231.6	7.2	3.1%
	Design for Recycling and Composting	257.8	7.7	3.0%	261.7	7.8	3.0%	268.9	8.0	3.0%
	Design for Reduced Material Footprint	220.3	5.3	2.4%	223.7	5.4	2.4%	229.5	5.5	2.4%
	Design for Reuse & Repair	259.9	7.4	2.8%	264.0	7.5	2.8%	271.0	7.7	2.8%
	Design for Sustainable Food Products	52.1	1.3	2.5%	52.9	1.3	2.5%	54.3	1.4	2.5%
	Design with Secondary Material	275.2	6.4	2.3%	279.4	6.5	2.3%	286.9	6.7	2.3%
Digital Infrastructure & Information Systems	Governance, Policy & Knowledge Infrastructure	46.5	1.4	3.1%	47.3	1.4	3.1%	48.5	1.5	3.1%
	Market & Value Exchange Platforms	75.4	3.0	4.0%	76.5	3.1	4.0%	78.6	3.1	4.0%
	Measurement, Reporting & Decision Support	80.2	1.8	2.3%	81.4	1.9	2.3%	83.6	1.9	2.3%
	Product & Material Lifecycle Systems	109.1	3.2	2.9%	110.7	3.2	2.9%	113.7	3.3	2.9%
Recovery and Recycling	Composting Feed Stock	47.3	2.7	5.8%	49.7	2.9	5.8%	52.2	3.0	5.8%
	Construction & Operation of Waste Treatment Facilities	135.1	1.1	0.8%	141.2	1.2	0.8%	22.5	1.3	5.6%
	Recovery and Recycling Collection	566.8	0.0	0.0%	597.9	0.0	0.0%	314.4	0.0	0.0%
	Recovery and Recycling Equipment	45.6	7.4	16.1%	48.1	7.8	16.1%	144.0	8.2	5.7%
	Recovery and Recycling Process	887.1	65.5	7.4%	924.5	68.4	7.4%	1,308.9	71.4	5.5%
Redistribute	First/Last Mile Logistics for Redistribution	454.5	2.4	0.5%	461.3	2.5	0.5%	473.8	2.5	0.5%

	Food Redistribution	211.3	0.5	0.2%	214.4	0.5	0.2%	220.1	0.5	0.2%
	Reverse Logistics and Collection for Reuse	438.0	1.1	0.2%	444.7	1.1	0.2%	456.7	1.1	0.2%
Remanufacture	IRs "	670.4	20.6	3.1%	680.7	20.9	3.1%	698.7	21.4	3.1%
	OEMs "	639.7	24.1	3.8%	649.6	24.5	3.8%	666.6	25.2	3.8%
	Remanufacture Engin. & Equip. "	737.4	11.0	1.5%	748.8	11.2	1.5%	768.8	11.5	1.5%
Rental	Leasing	485.5	0.0	0.0%	492.8	0.0	0.0%	505.8	0.0	0.0%
	Rental	734.5	0.0	0.0%	745.8	0.0	0.0%	765.4	0.0	0.0%
Repair	Engineering & Equipment for Repair	499.3	7.6	1.5%	506.9	7.7	1.5%	520.6	7.9	1.5%
	Maintenance	518.5	1.3	0.2%	526.1	1.3	0.2%	539.8	1.3	0.2%
	Service	543.2	1.3	0.2%	551.5	1.3	0.2%	566.1	1.4	0.2%
	Upgrade and Alteration	561.6	1.4	0.2%	570.1	1.4	0.2%	585.1	1.4	0.2%
Reuse	Collection, Sanitation and Reuse (CSR, e.g. Milk Bottles)	461.2	0.7	0.2%	468.2	0.7	0.2%	480.8	0.7	0.2%
	Repurpose	419.9	8.2	2.0%	426.5	8.3	2.0%	437.8	8.6	2.0%
	Second Hand Sales	434.2	18.0	4.1%	440.5	18.2	4.1%	452.3	18.7	4.1%
Total		**11,089.7**	**219.3**	**2.0%**	**11,312.5**	**225.0**	**2.0%**	**11,646.7**	**232.4**	**2.0%**

Note: “ also in Climate Tech dataset.

Table 2.9 shows the average for 2024/25 is 2.0%, with variability across sub-sectors such as 0% for Rental and Leasing, which contrasts with the higher 5.8% for Composting Feedstock. This is a reflection of the wide variety of sub-sectors in the Circular Economy dataset.

2.3 London's Circular Economy Compared with the Rest of the UK's Regions

2.3.1 London's Circular Economy Compared with the UK

Figure 2.21: London and the UK 2024/25 Circular Economy Sales by Level 2

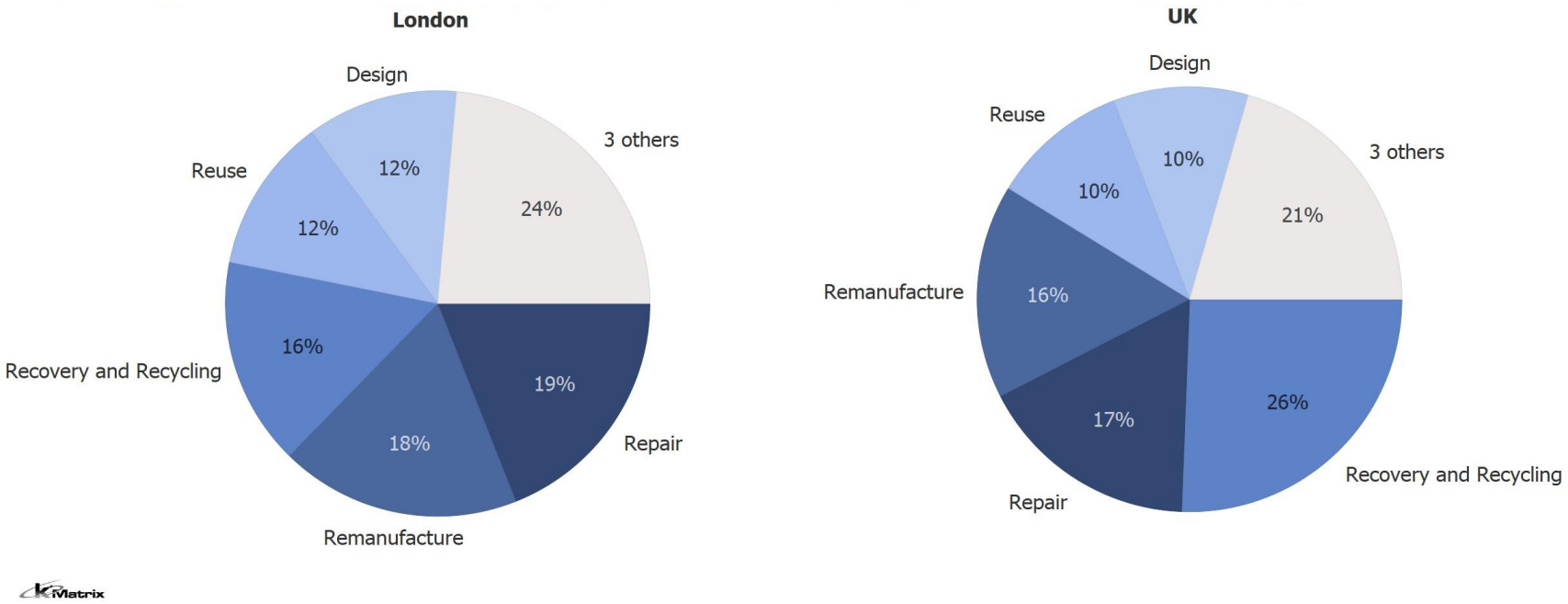


Figure 2.21 compares the profile of London and UK's Circular Economy activities at Level 2 for sales, and shows London's Repair; Remanufacture; Reuse and design markets all hold a two-percentage point larger share of the market than the UK average (e.g. Repair London 19% vs. UK 17%; conversely London's Recovery & Recycling market share is ten-percentage points lower than the UK average (16% vs. 26%).

Figure 2.22: London and the UK 2024/25 Circular Economy sub-sector Sales by Level 3

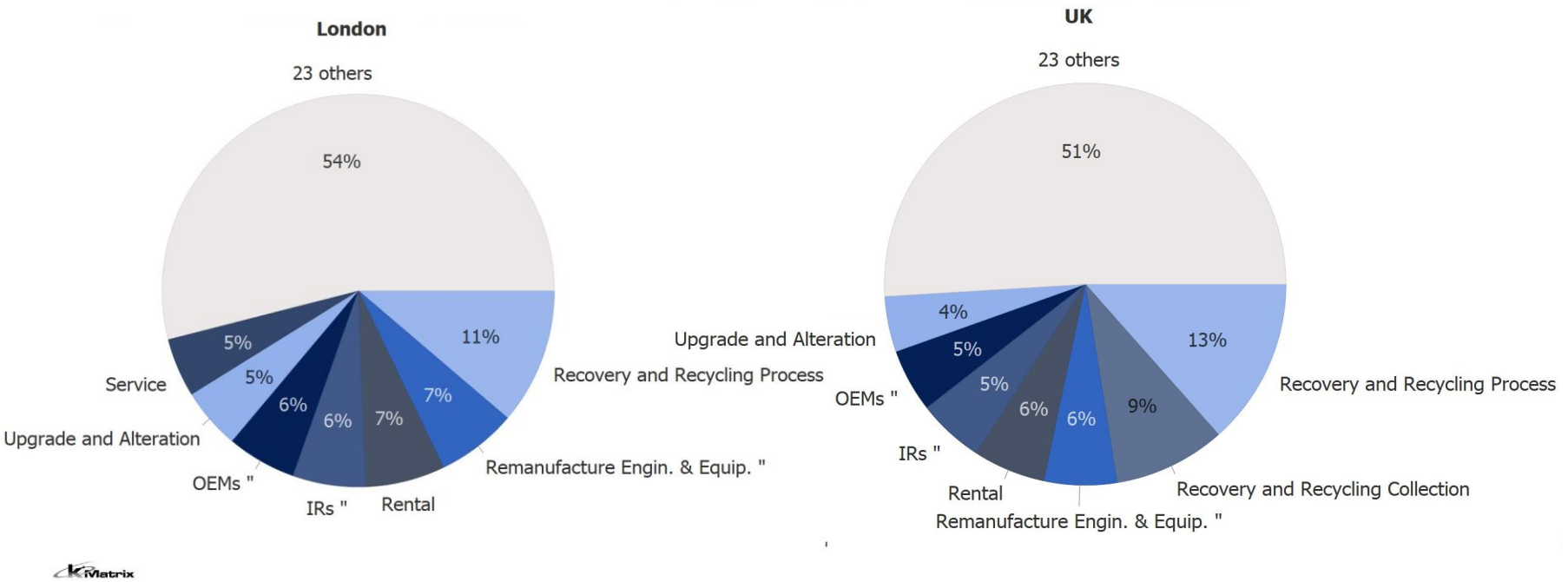


Figure 2.22 extends the analysis by comparing the profile of London and UK's Circular Economy activities at Level 3 for sales. There are significant differences between the two that gives London a distinctive Circular Economy profile compared to the overall UK profile.

Recovery and Recycling Process is the largest Level 3 sub-sector for both geographies (London 11% vs. UK 13%), with Recovery and Recycling Collection being the second largest in the UK (9%) but not featuring in the London top seven. Instead, London's share of Remanufacture Engineering & Equipment is higher in London than for the UK (7% vs. 6%) and this is the same for Rental (7% vs. 6%; IRs (6% vs. 5%); OEMs (6% vs. 5%) and Upgrade and Alteration (5% vs. 4%). London's 7th sub-sector is Service (Repair Level 2 sub-sector) with 5% of the market. The remaining 23 sub-sectors account for 54% of the London market vs. 51% of the UK.

Note: OEMs is short for Remanufacture by Original Equipment Manufacturers and IRs stands for Independent Remanufacturers.

Figure 2.23: UK Regional Sales, Employment and Companies 2024/25 as % of UK

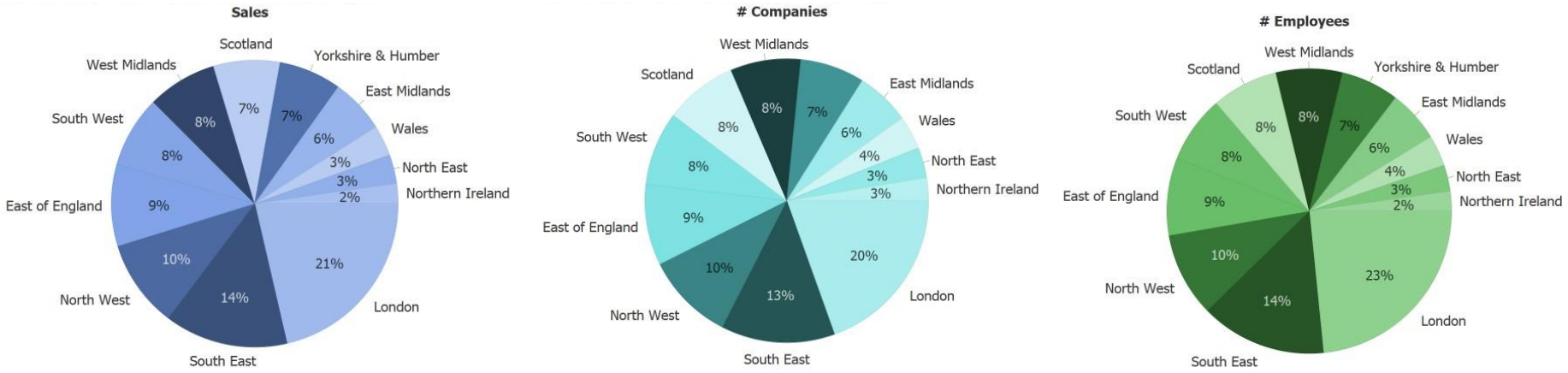


Figure 2.23 compares the "old" UK regions and the Devolved Administrations (for consistency with previous reporting) for sales, companies and employment.

London accounts for 21% of sales, 20% of companies and 23% of employment.

The next largest regions for Circular Economy Sales are the South East, North West and East of England. These same regions are within the top four after London for both number of companies and number of employees.

Figure 2.24: Sales 2024/25 London as % of UK at Level 2

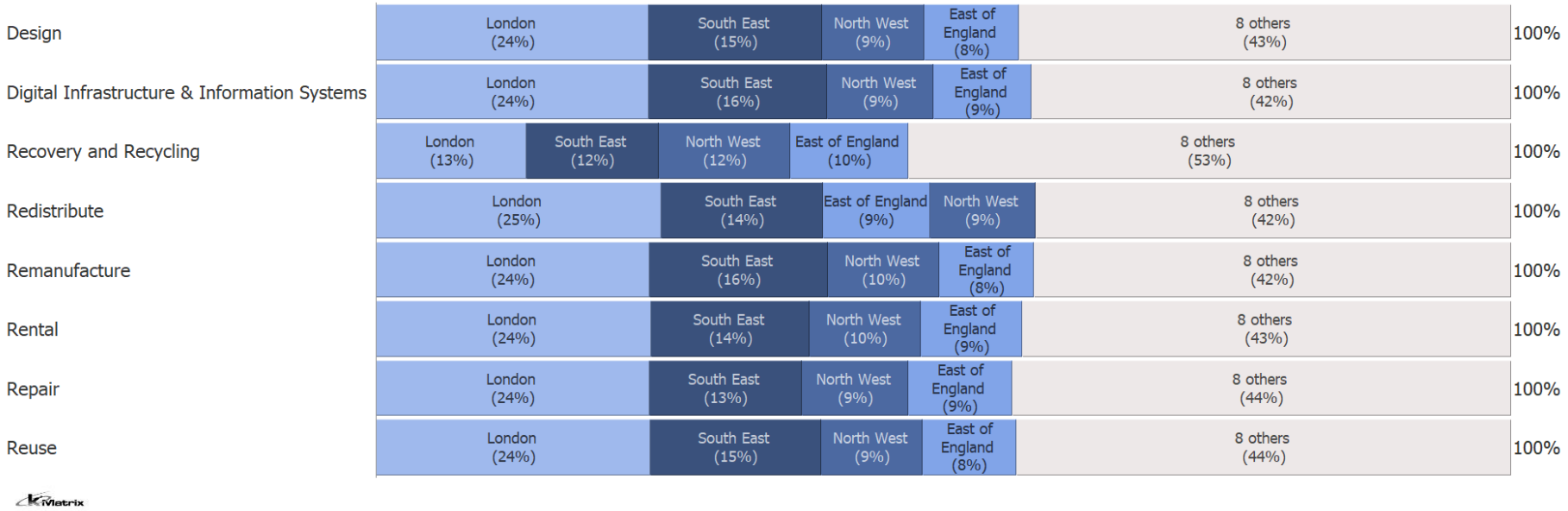


Figure 2.24 then compares the same regions again for 2024/25, but this time by all the Level 2 sub-sectors. This graphic shows how London's 21% of UK Sales is made up from a range of contributions, from Redistribute at 25% to Recovery & Recycling at 13%. London is in the top four regions for all 8 Level 2 sub-sectors. The larger the percentage share of a sub-sector in a region, the higher the degree of supply chain localization in that sub-sector, in that region. The higher the degree of localization, the bigger the opportunity for the development of partnerships and regional cooperation.

2.3.2 London's Impact on Regional Circular Economy Chains and Networks of Supply

In this section we analyse the impact of London's Circular Economy on other regions of the UK.

This is provided as a measure of the sales within the chains and networks of supply of a region, generated by the Circular Economy in London.

This analysis was performed by tracking sales of activities within London, through the chains and networks of supply, to determine point of origin and subsequent movement of constituent products or services.

Only value-added activities are included, from components to consultancy, R&D to assembly.

A limitation of the analysis is the activities measured are within the chain and network of supply and represent the traded activities within the sector, as such, untraded academic research is not counted.

The Sales numbers for sub-sectors within regions of the UK have been calculated through the same data triangulation process as other metrics within the study, but with additional locational data overlaid, specifically mapping the movement and trade of goods and services across the country.

This analysis included sources within the core source block, with additional accredited research sources augmenting the data triangulation process, and include:

- Data reported by companies
- Public sector sources
- Private sector sources
- Institutional sources
- Industrial and trade sources
- Academic Data sources (sector specific)
- Advertising and HR
- Financial, legal and investment
- Other (unpublished) sources

Table 2.10: 2023/24 Net benefit of London's Circular Economy market to the Rest of the UK, through chains and networks of supply, (£m)

Level 1	Level 2	London Total Sales (£m) 2023/24	Supply Chain Outside of London (£m)	Supply Chain as % of London
Circular Economy	Repair	1,342.1	454.7	33.9%
	Remanufacture	324.3	122.3	37.7%
	Recovery and Recycling	1,841.9	562.4	30.5%
	Reuse	1,150.6	382.9	33.3%
	Design	2,134.0	839.0	39.3%
	Rental	1,271.2	461.7	36.3%
	Redistribute	2,211.6	836.5	37.8%
	Digital Infrastructure & Information Systems	1,370.9	564.7	41.2%
Total		**11,646.7**	**4,224.2**	**36.3%**

Table 2.10 shows the net benefit of the Circular Economy in London, to UK chains and networks of supply outside of London.

London's Circular Economy sales in 2023/24 were £11.6bn and generated a further £4.2bn, or an additional 36.3% in terms of sales within the chains and networks of supply across the UK, outside of London.

Sub-sectors in London which generated the highest sales in the chains and networks of supply outside of London were Remanufacture with £839m; Repair with £837m; Reuse with £565m; and Recovery & Recycling with £562m.

London sub-sectors that generated the largest sales within the chains and network of supply outside of London, as a percentage of additional London sales were Reuse with 41.2%; Remanufacture with 39.3%; Repair with 37.8%; and Digital Infrastructure & Information Systems with 37.7%.

The sub-sectors that created the least additional sales were Recovery & Recycling with 30.5% and Redistribution with 33.3%.

Figure 2.25: Net benefit of London's Circular Economy market to UK regions, through chains and networks of supply (£m)

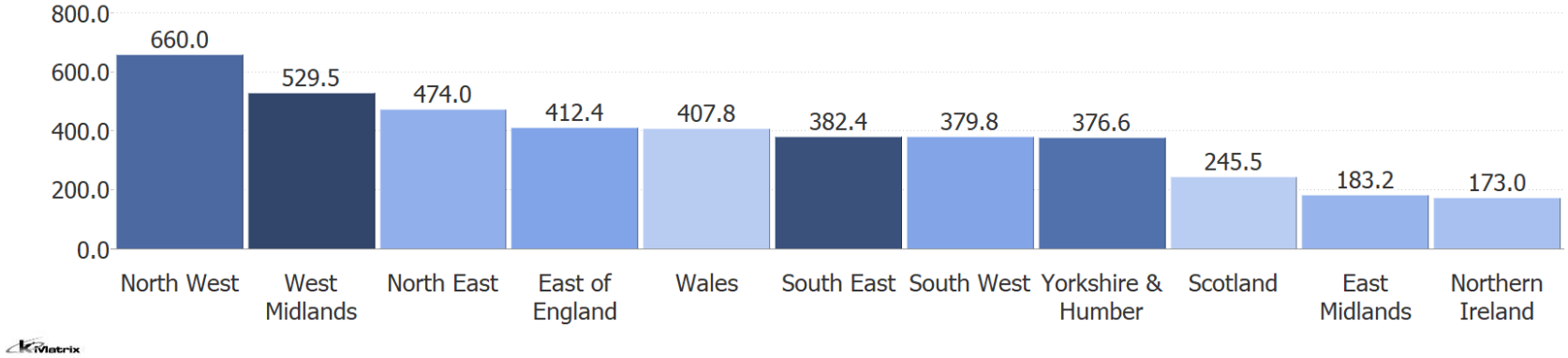


Figure 2.25 shows the net benefit of the Circular Economy in London, to UK chains and networks of supply outside of London, by region. The greatest beneficiaries of sales generation as a direct result of London activity are:

- The North West with £660m or 5.7% of the London total sales
- The West Midlands with £530m or 4.5% of the London total sales
- The North East with £474m or 4.1% of the London total sales
- The East of England with £412m or 3.5% of the London total sales
- Wales with £408m or 3.5% of the London total sales
- The rest of the South East with £382m or 3.3% of the London total sales

Table 2.11: 2024/25 Net benefit of London's Circular Economy market to UK regions, through chains and networks of supply, by sub-sector (£m)

Level 2	London Total Sales (£m)	North West Benefit (£m)	North East Benefit (£m)	Yorkshire & Humber Benefit (£m)	West Midlands Benefit (£m)	East Midlands Benefit (£m)	East of England Benefit (£m)	South West Benefit (£m)	South East Benefit (£m)	Wales Benefit (£m)	Scotland Benefit (£m)	Northern Ireland Benefit (£m)
Design	1,342.1	70.0	43.9	52.1	54.4	18.9	49.7	41.3	47.3	42.7	19.7	14.7
Digital Infrastructure & Information Systems	324.3	17.7	16.3	13.5	14.8	5.7	11.7	8.4	10.2	11.8	6.3	6.0
Recovery and Recycling	1,841.9	81.7	54.6	37.6	68.2	19.5	52.6	80.1	46.8	46.9	51.1	23.2
Redistribute	1,150.6	57.2	50.2	46.8	57.3	14.1	23.2	24.1	40.3	33.8	19.4	16.6
Remanufacture	2,134.0	128.7	118.2	63.6	97.1	35.3	79.6	82.8	68.9	70.2	57.0	37.5

Rental	1,271.2	77.0	40.5	33.6	69.0	19.0	61.7	27.5	35.1	57.3	21.6	19.4
Repair	2,211.6	144.1	84.0	75.9	87.8	40.5	78.7	76.0	99.2	80.1	36.8	33.4
Reuse	1,370.9	83.6	66.2	53.5	81.0	30.2	55.1	39.7	34.6	65.1	33.5	22.2
Total	**11,646.7**	**660.0**	**474.0**	**376.6**	**529.5**	**183.2**	**412.4**	**379.8**	**382.4**	**407.8**	**245.5**	**173.0**

Table 2.11 shows the significant London sub-sectors which generate large sales outside of London include:

- Repair in the North West with £144.1m (6.5%) and the South East with £99.2m (4.5%)
- Remanufacture in the North West with £128.7m (6.0%), the North East with £118.2m (5.5%), and the West Midlands with £97.1m (4.6%)
- Recovery & Recycling in the North West with £81.7m (4.4%), and the South West with £80.1m (4.3%)

Part of the benefit in the chains and networks of supply come from investment from London companies made into the chains and networks of supply across the country and into Europe. Another element concerns R&D within universities, where London provides financial and practical support for development within industry, additionally, head office functions also play a role. More specifically, project assembly and coordination of major large projects often occurs in London, with companies drawing from new or established chains and networks of supply from across the country, to supply and fulfil significant contracts.

2.4 London's Circular Economy by Local Authority

2.4.1 Circular Economy by Local Authority

This section of the report analyses the Circular Economy in London's Local Authorities.

Figure 2.26: London's Circular Economy Sales 2024/25 by Local Authority

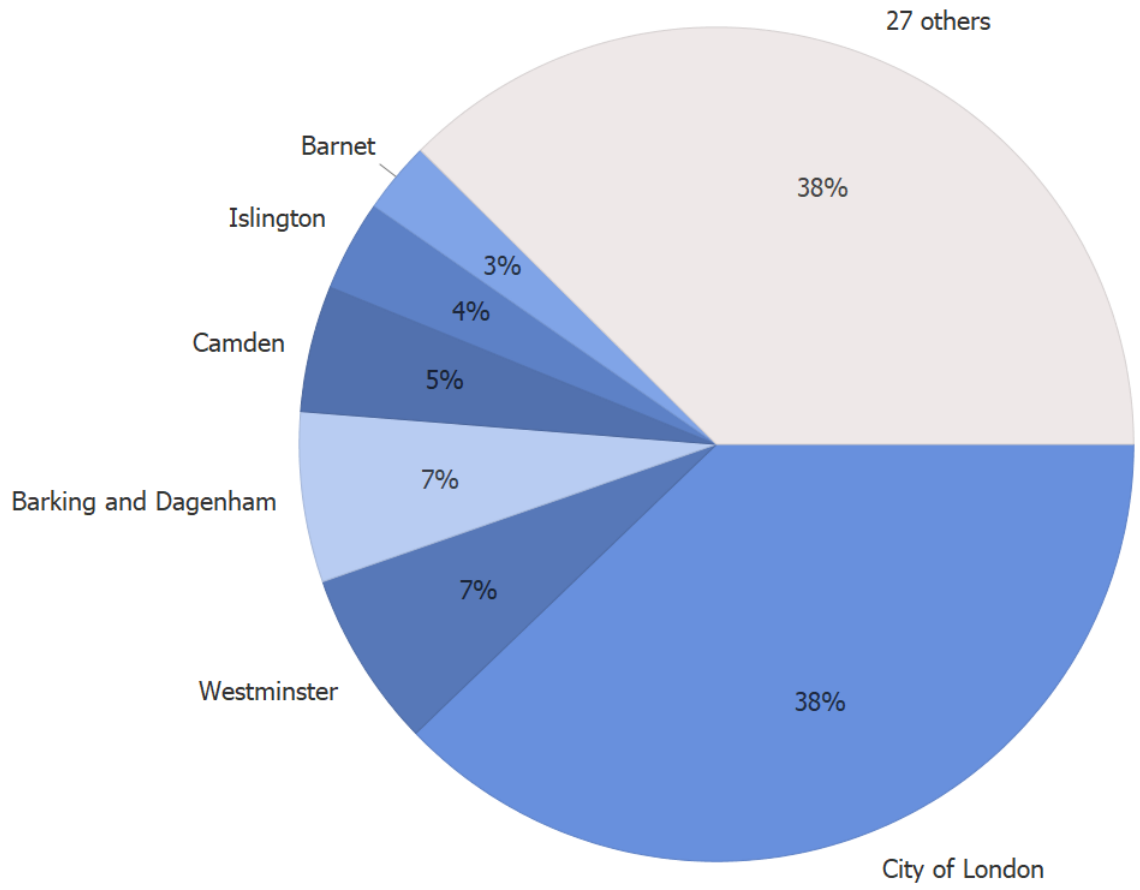


Figure 2.26 shows Circular Economy sales for 2024/25 split by Local Authority. The City of London accounts for 38% of London Circular Economy sales (38% in 2022/23), ahead of Westminster (7%), Barking & Dagenham (7%) and Camden (5%).

Local Authorities are analysed in more detail, by year, by economic measure and by Circular Economy activity in the following section.

2.4.2. Local Authority Analysis by Year and Sub-Sector

Table 2.12: Local Authorities Sales, Companies and Employment from 2022/23 to 2024/25

	Sales £m					# Companies					# Employees				
Local Authority	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**
Barking and Dagenham	726.5	2.5%	744.7	3.2%	768.7	169	3.2%	174	3.7%	181	13,672	0.6%	13,749	0.4%	13,803
Barnet	308.2	2.0%	314.4	3.0%	323.7	64	2.5%	65	3.3%	68	6,278	0.2%	6,293	0.2%	6,306
Bexley	108.2	2.9%	111.4	3.6%	115.4	29	3.7%	30	4.1%	31	1,806	0.8%	1,821	0.8%	1,836
Brent	145.4	2.2%	148.5	3.1%	153.1	31	2.7%	32	3.4%	33	2,891	0.3%	2,900	0.2%	2,905
Bromley	186.3	2.2%	190.3	3.0%	196.1	42	2.8%	43	3.4%	44	3,737	0.1%	3,742	0.3%	3,753
Camden	543.6	2.0%	554.3	2.9%	570.5	115	2.4%	118	3.2%	122	11,284	0.2%	11,304	0.2%	11,329
City of London	4,223.5	1.6%	4,289.8	2.7%	4,404.3	775	1.6%	788	2.7%	809	94,738	-0.1%	94,643	0.0%	94,636
Croydon	145.1	2.1%	148.3	3.1%	152.8	32	2.7%	33	3.4%	34	2,915	0.3%	2,923	0.1%	2,927
Ealing	155.9	2.3%	159.5	3.1%	164.5	37	3.1%	38	3.5%	40	3,036	0.4%	3,049	0.4%	3,060
Enfield	215.8	2.7%	221.7	3.4%	229.3	60	3.7%	62	4.0%	64	3,869	0.9%	3,902	0.7%	3,930
Greenwich	84.4	2.4%	86.5	3.2%	89.2	20	3.2%	20	3.6%	21	1,608	0.4%	1,614	0.4%	1,621
Hackney	282.3	2.5%	289.5	3.3%	298.9	66	3.2%	68	3.7%	71	5,202	0.6%	5,232	0.4%	5,251
Hammersmith and Fulham	108.1	1.8%	110.1	2.8%	113.2	21	2.1%	22	3.0%	23	2,331	0.2%	2,335	-0.1%	2,333
Haringey	88.4	2.0%	90.1	2.9%	92.7	18	2.4%	19	3.2%	19	1,835	0.0%	1,836	0.3%	1,841
Harrow	144.0	2.1%	147.1	3.1%	151.6	32	2.7%	32	3.4%	33	2,878	0.4%	2,889	0.3%	2,896
Havering	69.5	2.5%	71.2	3.3%	73.6	17	3.3%	18	3.8%	18	1,304	0.6%	1,311	0.5%	1,318
Hillingdon	260.6	2.5%	267.1	3.3%	275.8	61	3.1%	63	3.7%	65	4,877	0.7%	4,909	0.2%	4,920
Hounslow	133.5	2.4%	136.6	3.2%	140.9	31	3.1%	32	3.6%	33	2,570	0.5%	2,584	0.3%	2,591
Islington	388.7	2.2%	397.4	3.1%	409.7	91	3.0%	94	3.5%	97	7,679	0.4%	7,706	0.5%	7,742
Kensington and Chelsea	161.3	1.9%	164.4	2.9%	169.2	34	2.3%	35	3.2%	36	3,402	0.3%	3,411	0.0%	3,411
Kingston upon Thames	103.1	2.0%	105.2	3.0%	108.3	21	2.5%	22	3.2%	23	2,137	0.4%	2,144	0.2%	2,148

Lambeth	213.3	2.0%	217.6	2.9%	224.0	44	2.5%	45	3.2%	46	4,373	0.2%	4,383	0.2%	4,392
Lewisham	87.4	1.8%	89.0	2.8%	91.5	17	2.2%	17	3.1%	18	1,870	0.0%	1,870	0.0%	1,870
Merton	100.6	2.3%	102.9	3.2%	106.2	24	3.0%	25	3.7%	26	1,941	0.5%	1,950	0.4%	1,957
Newham	87.8	3.0%	90.4	3.6%	93.7	24	3.8%	24	4.1%	25	1,444	0.8%	1,456	0.7%	1,466
Redbridge	156.6	2.8%	161.0	3.5%	166.6	42	3.6%	43	3.8%	45	2,725	0.8%	2,746	0.6%	2,763
Richmond upon Thames	206.1	1.9%	210.1	2.9%	216.3	44	2.4%	45	3.3%	46	4,316	0.5%	4,336	0.0%	4,336
Southwark	207.6	2.2%	212.1	3.1%	218.6	46	2.7%	47	3.4%	49	4,100	0.6%	4,126	0.1%	4,131
Sutton	211.1	2.5%	216.4	3.3%	223.4	51	3.3%	53	3.7%	55	3,971	0.5%	3,993	0.4%	4,007
Tower Hamlets	185.0	2.4%	189.5	3.2%	195.6	44	3.1%	45	3.6%	47	3,511	0.5%	3,528	0.4%	3,541
Waltham Forest	108.6	2.3%	111.1	3.1%	114.6	25	3.0%	25	3.6%	26	2,112	0.5%	2,122	0.5%	2,134
Wandsworth	188.5	1.9%	192.2	2.9%	197.8	39	2.4%	40	3.2%	41	3,903	0.2%	3,911	0.4%	3,925
Westminster City	754.6	2.3%	772.3	3.2%	796.7	179	3.0%	184	3.6%	191	14,546	0.4%	14,603	0.4%	14,661

Growth is between one year and the next

Table 2.12 shows the two years of data for Local Authorities for sales, companies and employment. Growth between years is shown in red. Growth for sales and number of companies between 2023/24 and 2024/25 was between 1.6%-3.8% and was stronger than growth between 2022/23 and 2023/24 of 2.7%-4.1% across all Local Authorities. Growth in number of employees was slower, between a -0.1% contraction and 0.9% growth for all years, across all Local Authorities.

Figure 2.27: London's Local Authorities Circular Economy Sales 2024/25 (Level 2)

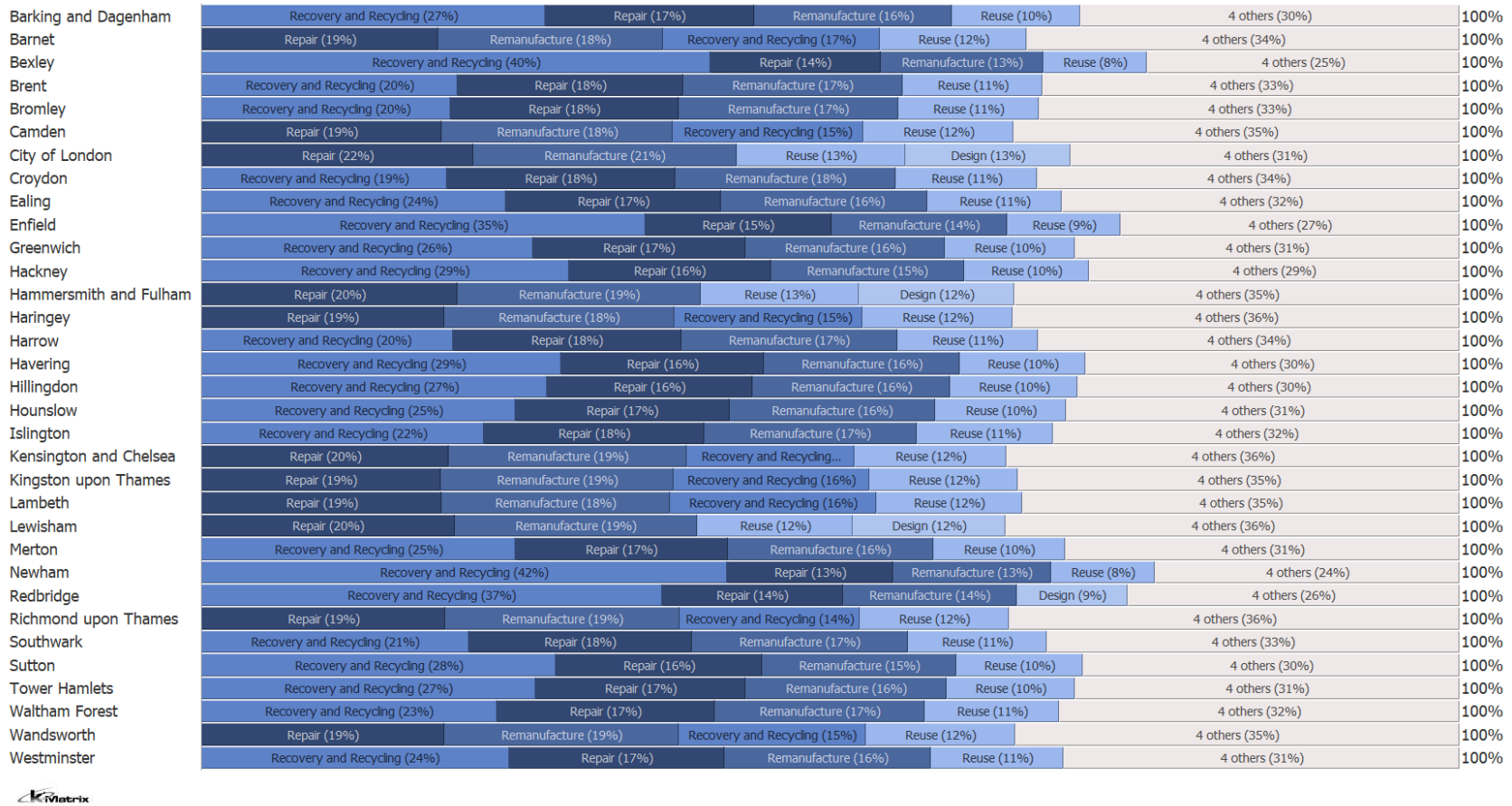
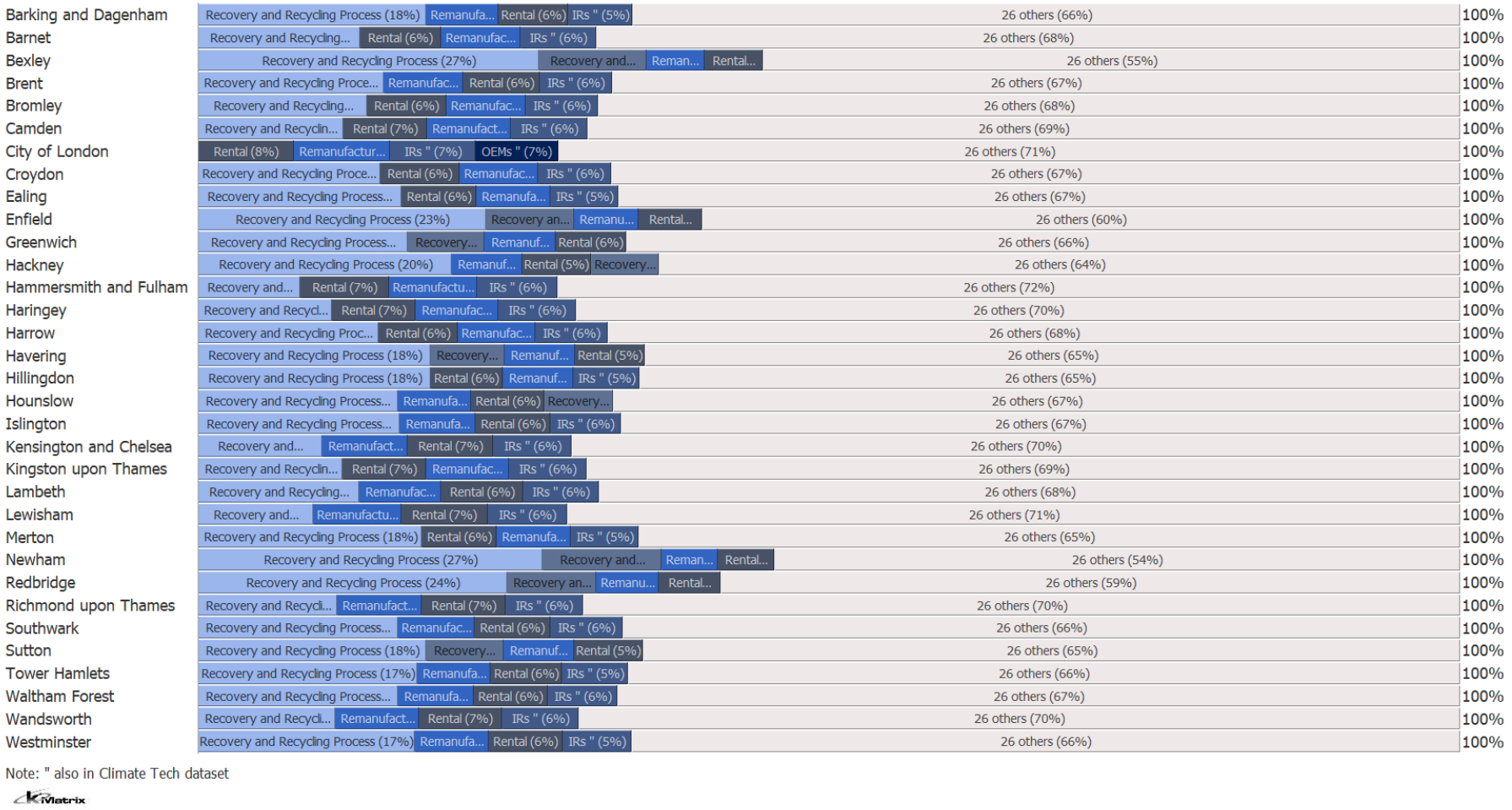


Figure 2.27 shows the different profiles of London's Local Authorities when sales are split at Level 2. There are significant ranges in proportions for Recovery & Recycling 13-42% (13-40% in 2022/23), Repair 13-22% (14-22% in 2022/23), Remanufacture 13-21% (13-21% in 2022/23), and Reuse 8-13% (8-13% in 2022/23). This highlights that London's Local Authorities are not a homogeneous market and show subtle regional variations in activity within the Circular Economy sector. This is highlighted by Figure 2.28 below.

Figure 2.28: London's Local Authorities Circular Economy Sales 2024/25 at Level 3



Note: " also in Climate Tech dataset

Figure 2.28 extends the analysis to include the Top 4 sub-sectors for each of London's Local Authorities. Typically, four sub-sectors account for over 60% of the total value, but the sub-sectors and their rankings do differ significantly across the 33 Local Authorities. But there are some consistent sub-sectors running through many of London's Local Authorities and these include Recovery & Recycling Process, Rental, Remanufacture Engineering & Equipment, Remanufacture by Independent Remanufacturers, and Recovery & Recycling Collection, they are represented in most of London's Local Authorities and are consistent with London's top six sub-sectors.

2.5 London's Circular Economy by Sub-Region

2.5.1 Circular Economy by London's Sub-Region

This section of the report analyses London's Sub-regions. Boroughs in each Sub-Region are provided in Appendix 4.

Figure 2.29: London's Circular Economy Sales 2024/25 by Sub-Region

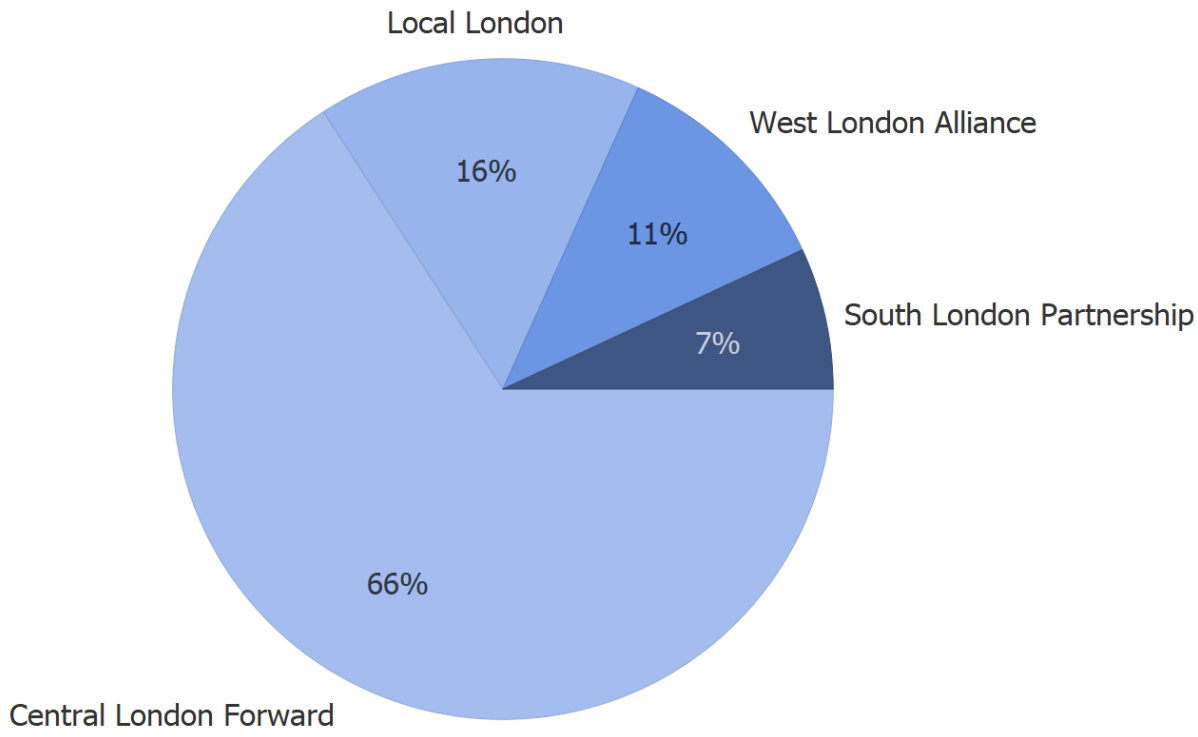


Figure 2.29 shows Circular Economy for 2024/25 split by sub-region for sales. Central London Forward accounts for 66% of London's Circular Economy sales (66% in 2022/23), 62% of companies (63% in 2022/23) and 68% of employment (68% in 2022/23).

London's sub-regions are analysed in more detail, by year, by economic measure and by Circular Economy activity in the following section.

2.5.2 London's Sub-regional Analysis by Year and Sub-Sector

Table 2.13: London's Sub-regions Sales, Companies and Employment from 2022/23 to 2024/25

	Sales £m					# Companies					# Employees				
London Sub-region	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**
Central London Forward	7,324.2	1.8%	7,458.1	2.8%	7,669.7	1,468	2.2%	1,500	3.0%	1,545	156,445	0.1%	156,554	0.1%	156,731
Local London	1,743.7	2.6%	1,788.3	3.3%	1,847.2	426	3.3%	440	3.8%	456	32,277	0.6%	32,464	0.5%	32,624
South London Partnership	766.1	2.2%	782.9	3.1%	807.1	172	2.8%	177	3.5%	183	15,280	0.4%	15,346	0.2%	15,375
West London alliance	1,255.6	2.2%	1,283.3	3.1%	1,322.7	277	2.8%	285	3.4%	294	24,861	0.4%	24,958	0.2%	25,011

Growth is between one year and the next

Table 2.13 shows the two years of growth data for London's sub-regions for sales, companies and employment. Growth for sales and number of companies between 2023/24 and 2024/25 was between 1.8%-3.3% and was stronger than growth between 2022/23 and 2023/24 of 2.2%-3.8% across all sub-regions. Growth in number of employees was slower, between 0.1% and 0.6% for all years, across all sub-regions.

Figure 2.30: London's Sub-regions Circular Economy Sales 2024/25 (Level 2)

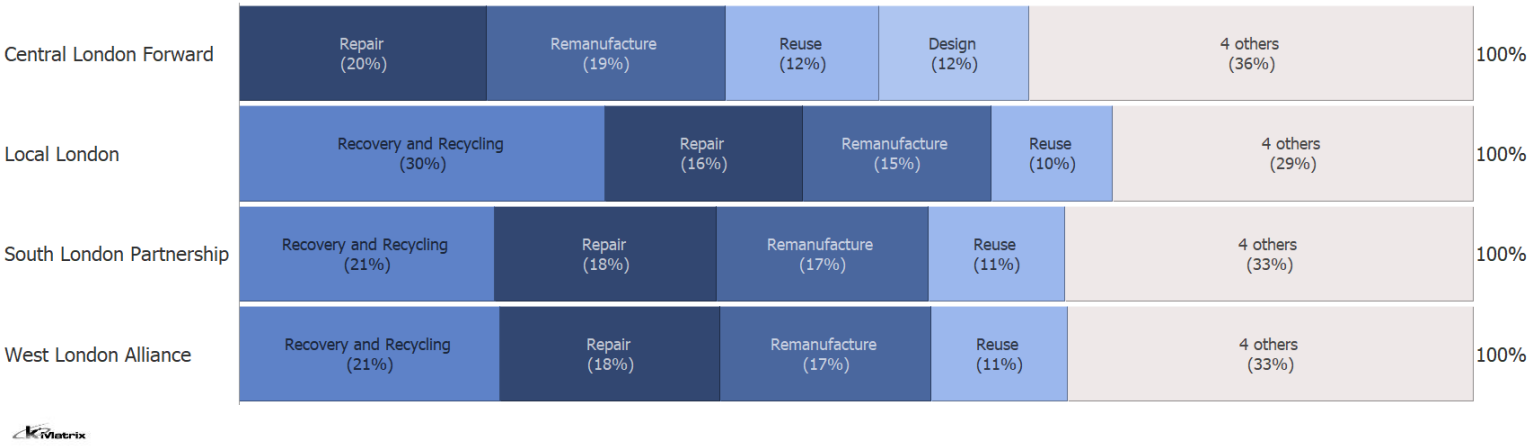
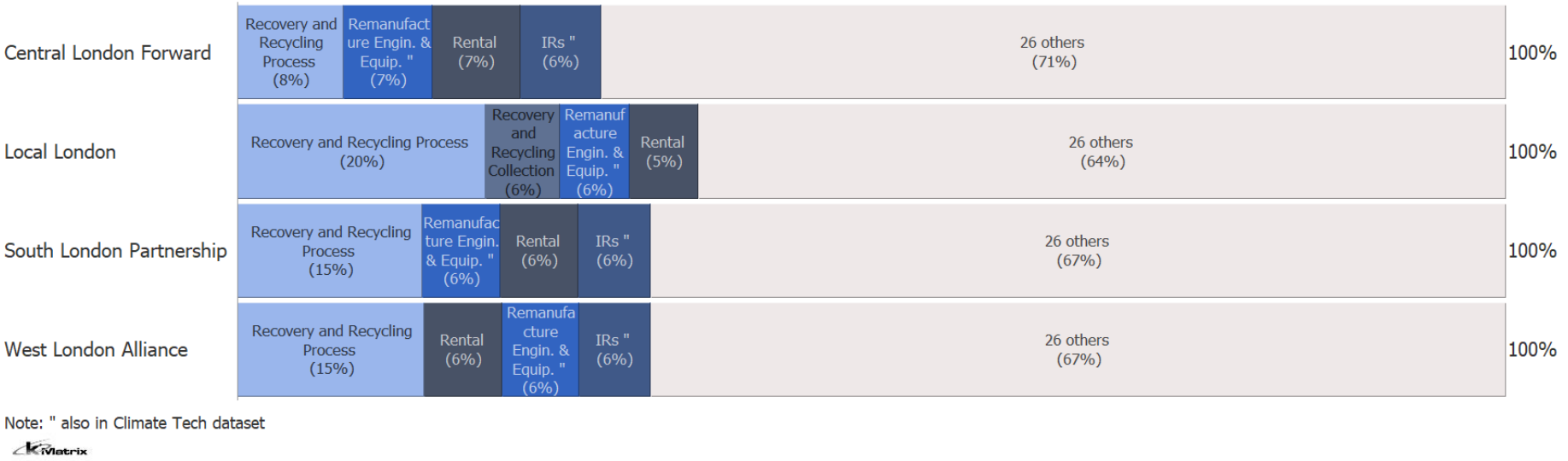


Figure 2.30 shows the different profiles of London's sub-regions when sales are split at Level 2. There are significant ranges in proportions for Recovery & Recycling 11-30% (11-28% in 2022/23), Repair 16-20% (16-20% in 2022/23), Remanufacture 15-19% (16-19% in 2022/23), Reuse 10-12% (10-13% in 2022/23), and Design 10-12% (10-12% in 2022/23). This highlights that London's sub-regions are not a homogeneous market, but they actually show subtle regional variations in activity within the Circular Economy sector. This is further confirmed by Figure 2.31 below.

Figure 2.31: London's Sub-regions Circular Economy Sales 2024/25 at Level 3



Note: " also in Climate Tech dataset

Figure 2.31 extends the analysis to include the Top 4 sub-sectors for each of London's sub-regions. Typically, four sub-sectors account for over 65% of the total value, whilst the sub-sectors are similar, their rankings do differ across the 4 sub-regions. As would be expected these are consistent with the sub-sectors running through many of London's Sub-regions, these being Recovery & Recycling Process, Remanufacture Engineering and Equipment, Rental, and Remanufacturing by Independent Remanufacturers; and are consistent with London's top five sub-sectors.

2.5.3 London Sub-regions' Circular Economy Exports

This section of the report addresses London sub-regions' Circular Economy Exports over the past two years and then identifies leading Circular Economy export products and services.

Figure 2.32: London Sub-regions' Exports (£m) 2022/23 to 2024/25

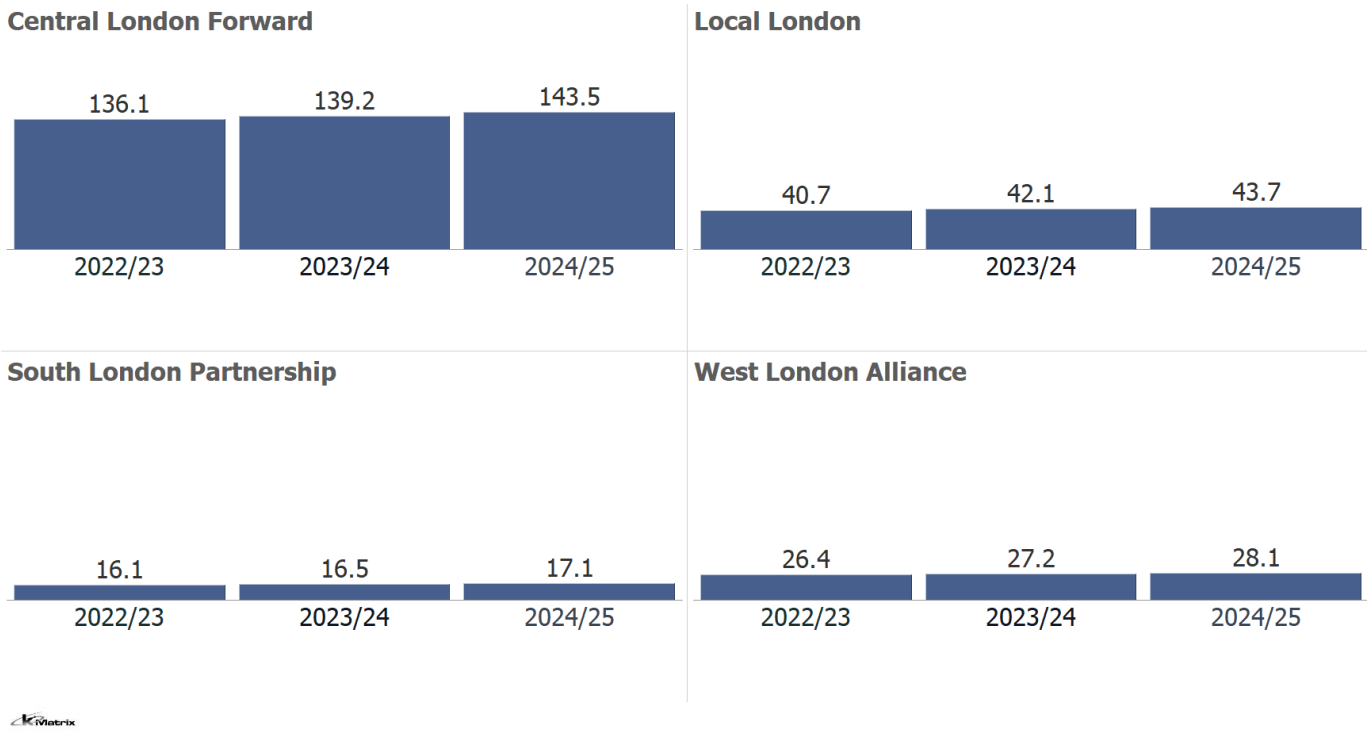


Figure 2.32 shows the value of Central London Forward Exports was £144m in 2024/25, up from £136m in 2022/23. They grew 2.3% from 2022/23 to 2023/24 and 3.1% from 2023/24 to 2024/25.

The value of Local London Exports was £44m in 2024/25, up from £41m in 2022/23. They grew 3.4% from 2022/23 to 2023/24 and 3.8% from 2023/24 to 2024/25.

The value of South London Partnership Exports was £17m in 2024/25, up from £16m in 2022/23. They grew 2.5% from 2022/23 to 2023/24 and 3.6% from 2023/24 to 2024/25.

The value of West London Alliance Exports was £28m in 2024/25, up from £26m in 2022/23. They grew 3.0% from 2022/23 to 2023/24 and 3.3% from 2023/24 to 2024/25.

This is compared to London growth of 2.6% and 3.3%, respectively.

Figure 2.33: London Sub-regions' Exports (%) by Sub-Sector 2024/25

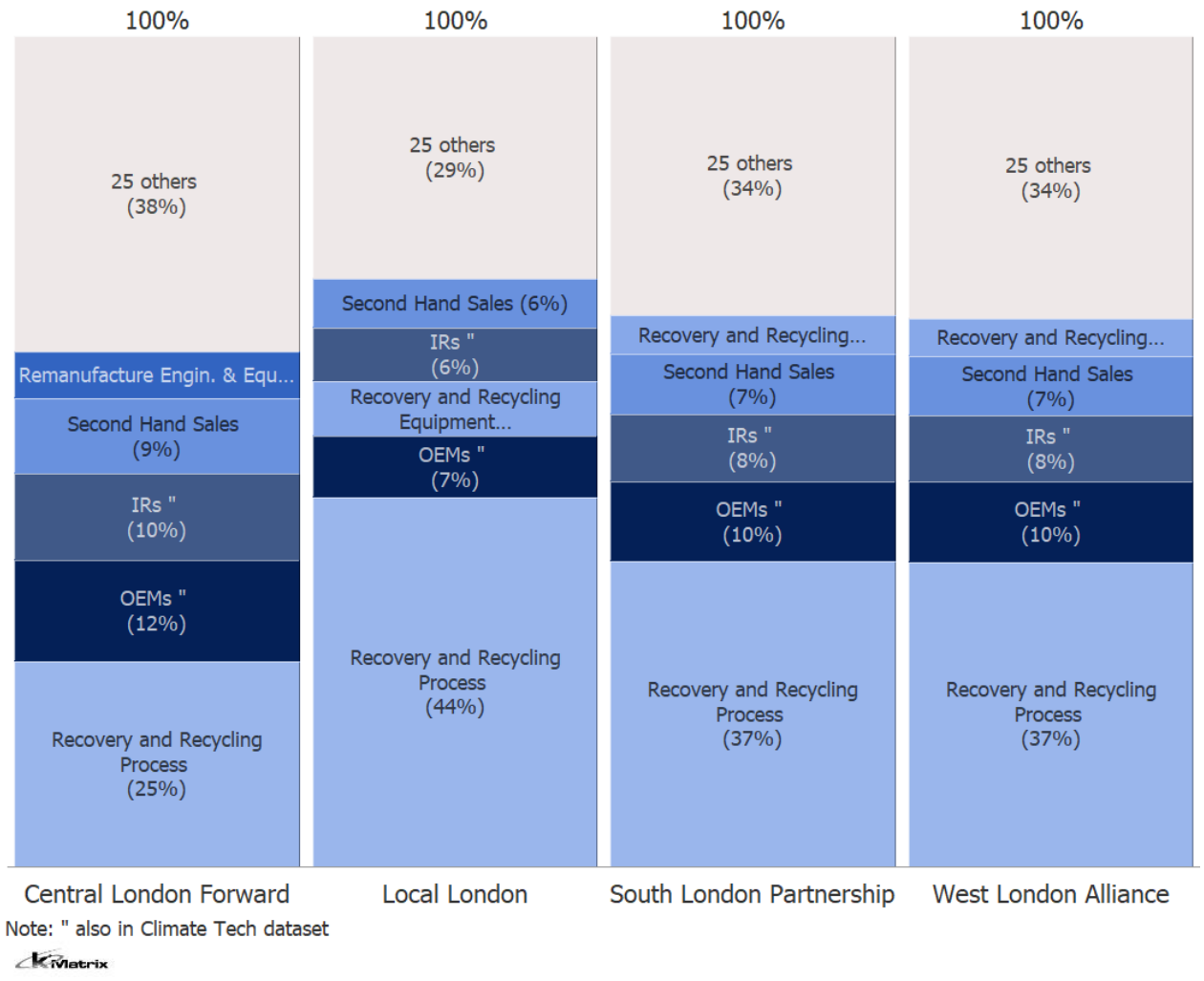


Figure 2.33 illustrates the proportion of Circular Economy exports varies significantly by sub-regions, in line with sales.

The top five export sub-sectors in Central London Forward are: Recovery and Recycling Process 25%; OEMs 12%; IRs 10%; Second Hand Sales 9%; and Remanufacture Engineering & Equipment 6%, the leading sub-sectors, accounting for 62% of exports.

The top five export sub-sectors in Local London are: Recovery and Recycling Process 44%; OEMs 7%; Recovery and Recycling Equipment 7%; IRs 6%; and Second Hand Sales 6%, the leading sub-sectors, accounting for 71% of exports.

The top five export sub-sectors in South London Partnership are: Recovery and Recycling Process 37%; OEMs 10%; IRs 8%; Second Hand Sales 9%; and Recovery and Recycling Equipment 5%, the leading sub-sectors, accounting for 66% of exports.

The top five export sub-sectors in West London Alliance are: Recovery and Recycling Process 37%; OEMs 10%; IRs 8%; Second Hand Sales 7%; and Recovery and Recycling Equipment 5%, the leading sub-sectors, accounting for 66% of exports.

2.5.4 London Sub-regions Circular Economy Timeseries

Figure 2.34 Circular Economy London Sub-regions – Total Sales (£m)

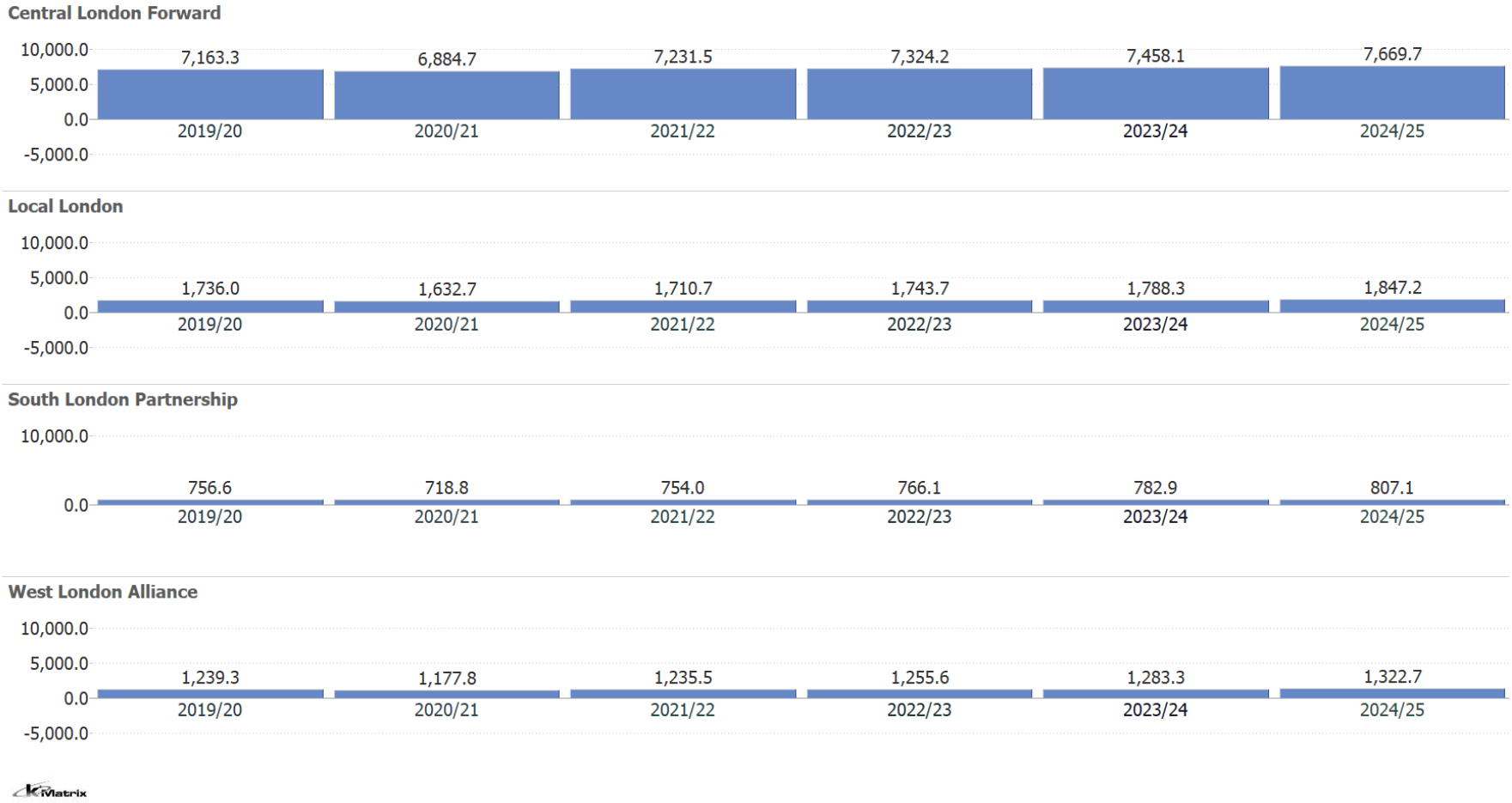


Figure 2.34 illustrates the annual sales for the Circular Economy sector in the four London Sub-regions. Central London Forward grew 7%, Local London grew by 6%, South London Partnership by 7% and West London Alliance by 7% between 2019/20 and 2024/25. This compares with London growth of 7% and UK growth of 8% between 2019/20 and 2024/25.

Figure 2.35: Circular Economy London Sub-regions – Total Number of Companies

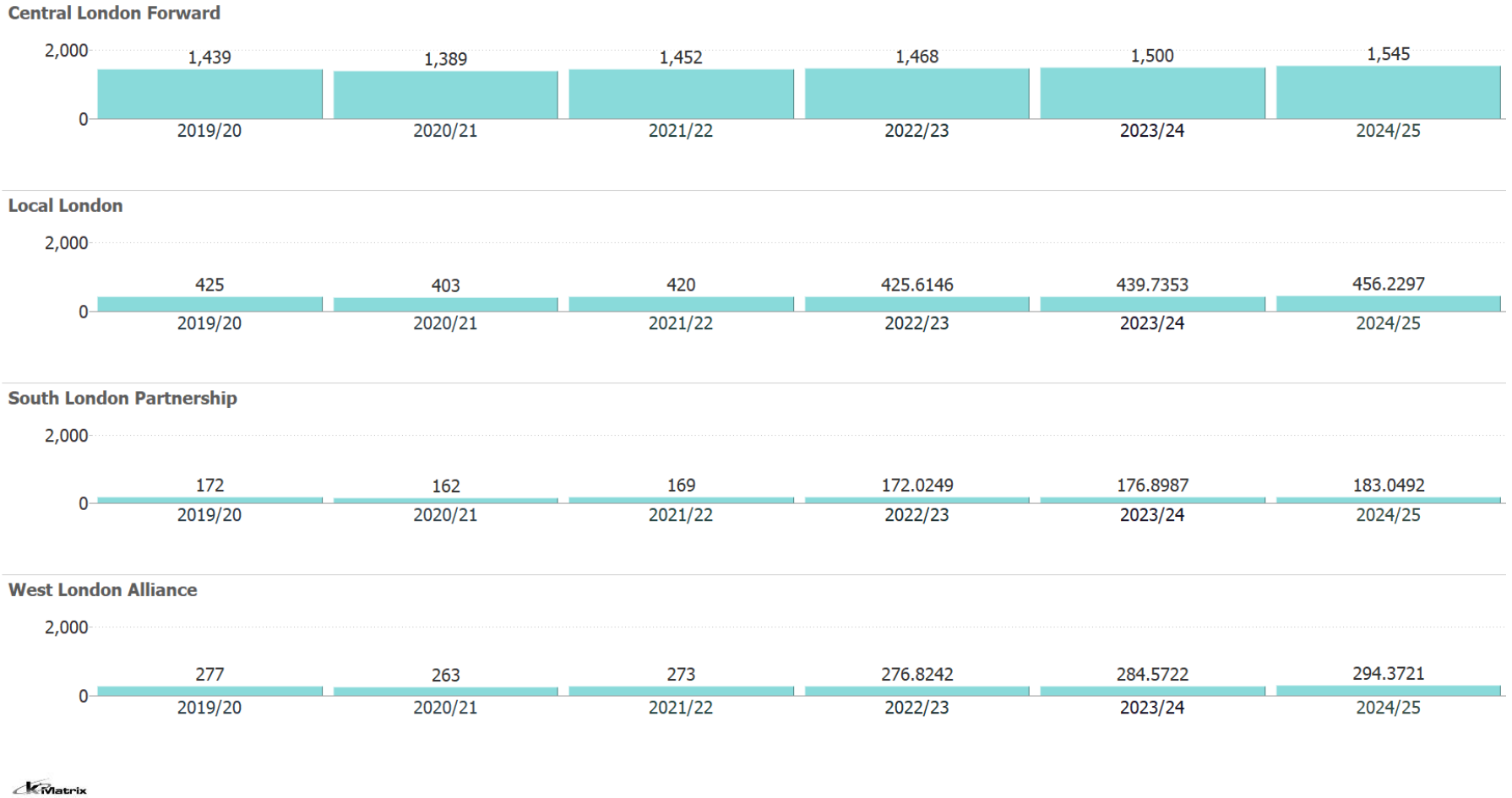


Figure 2.35 illustrates the annual number of companies for the Circular Economy sector in the four London Sub-regions. Central London Forward grew 7%, Local London grew by 7%, South London Partnership by 6% and West London Alliance by 6% between 2019/20 and 2024/25. This compares with London growth of 7% and UK growth of 6% 2019/20 and 2024/25.

Figure 2.36: Circular Economy London Sub-regions – Total Number of Employees

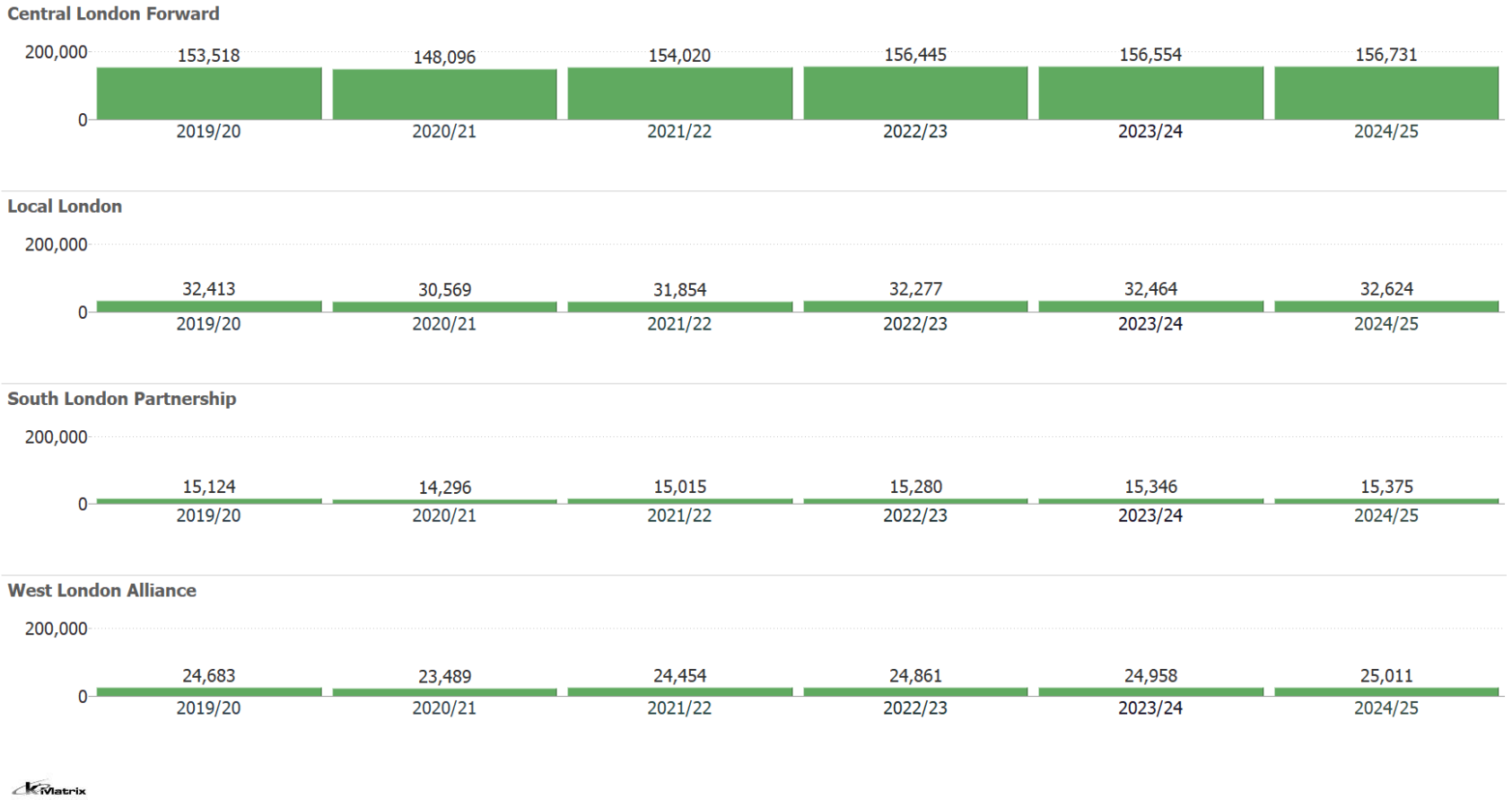


Figure 2.36 illustrates the annual number of employment for the Circular Economy sector in the four London Sub-regions. Central London Forward grew 2%, Local London grew by 1%, South London Partnership by 2% and West London Alliance by 1% between 2019/20 and 2024/25. This compares with London growth of 2% and UK growth of 0% 2019/20 and 2024/25.

3. London's Green & Blue Infrastructure Sector Analysis

3.1 London and the UK's Green & Blue Infrastructure Timeseries

Figure 3.1: Green & Blue Infrastructure London – Total Sales (£m)

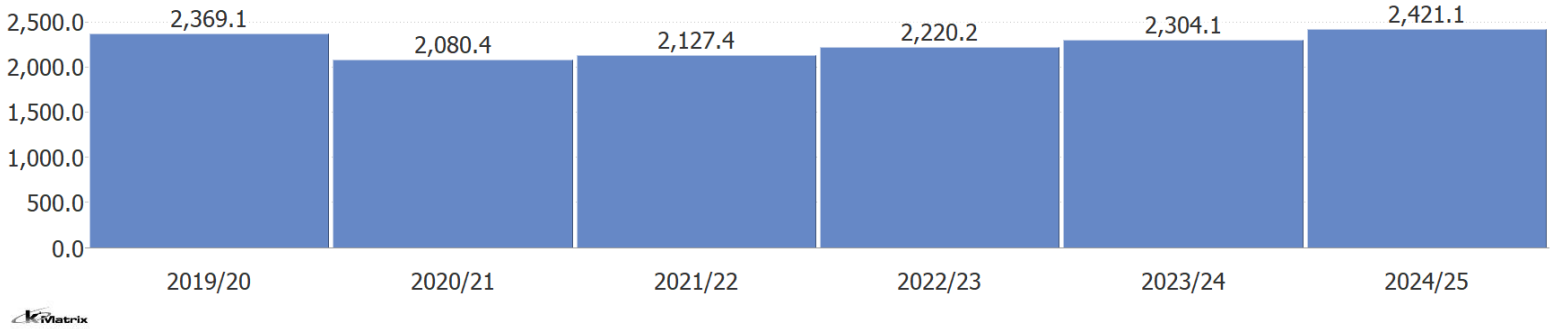
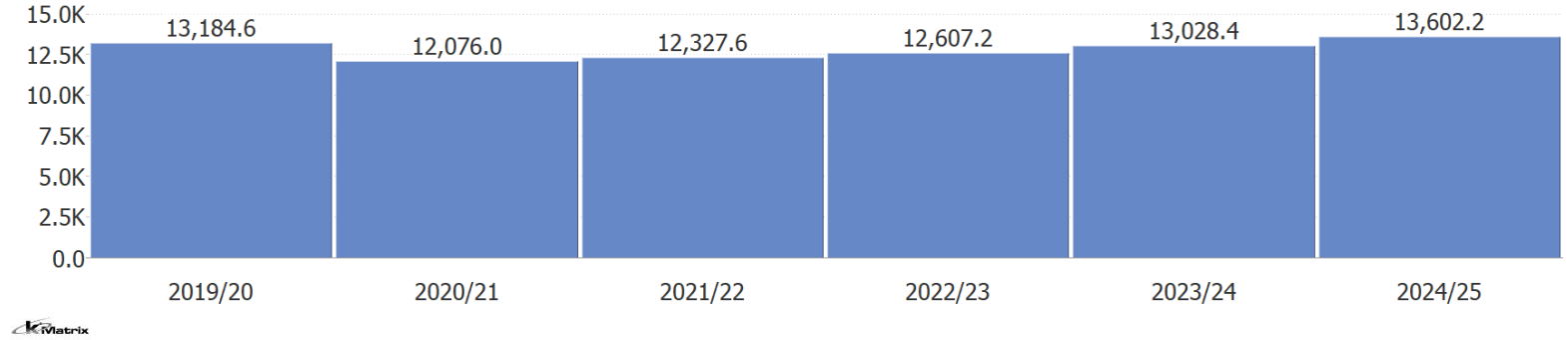


Figure 3.2: Green & Blue Infrastructure UK – Total Sales (£m)



Figures 3.1 and 3.2 illustrate the market contraction of sales for the Green & Blue Infrastructure sector in both the UK and London between 2019/20 and 2020/21, the London market contracted -12% and the UK market by -8% between 2019/20 and 2020/21 when the pandemic was at its peak. The London market grew by 9% and the UK by 8% between 2022/23 and 2024/25. Overall, the London market has grown 2%, and the UK market has grown 3% between 2019/20 and 2024/25.

Figure 3.3: Green & Blue Infrastructure London – Total Number of Companies

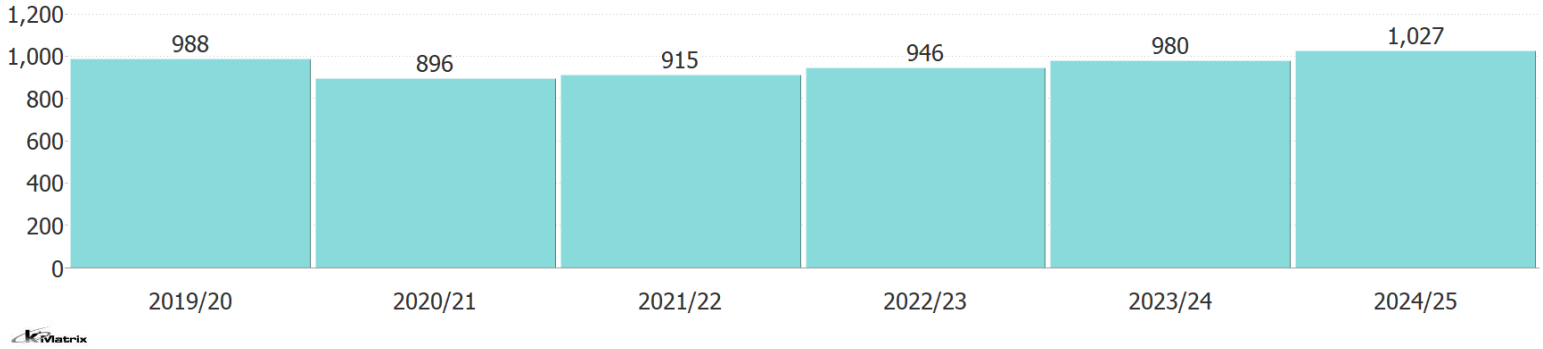
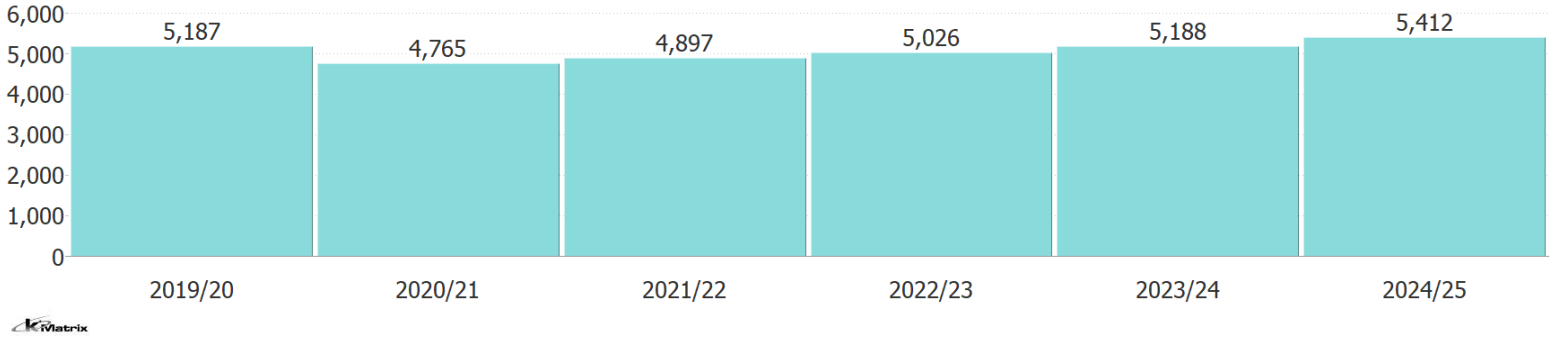


Figure 3.4: Green & Blue Infrastructure UK – Total Number of Companies



Figures 3.3 and 3.4 illustrate during the peak of the pandemic in the year between 2019/20 and 2020/21 the number of companies in the London market contracted by -9% and the UK market by -8%. The London company base grew by 9% and the UK by 8% between 2022/23 and 2024/25. Overall, the London company base has grown 4%, and the UK has grown 4% between 2019/20 and 2024/25.

Figure 3.5: Green & Blue Infrastructure London – Total Number of Employees

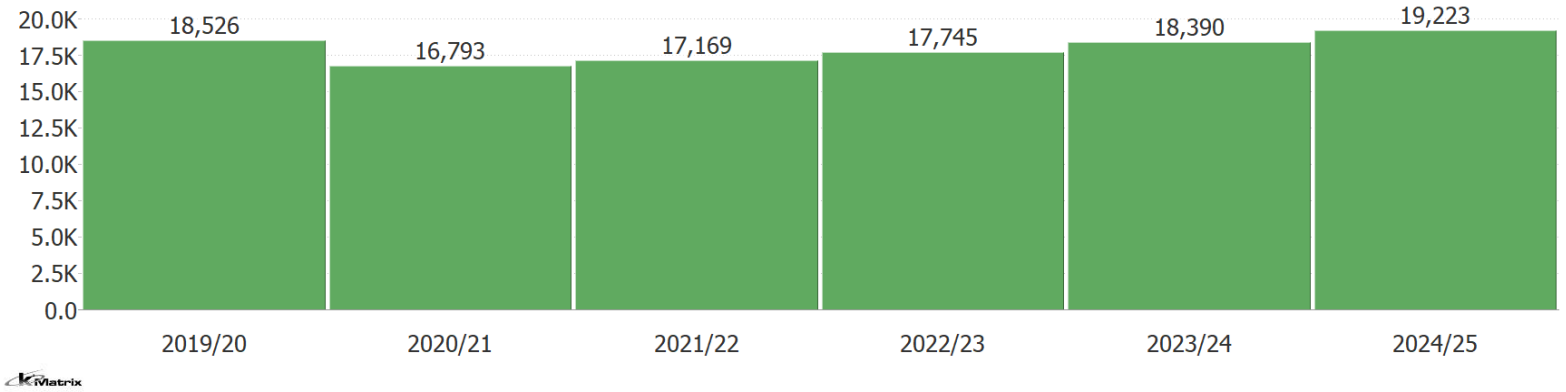
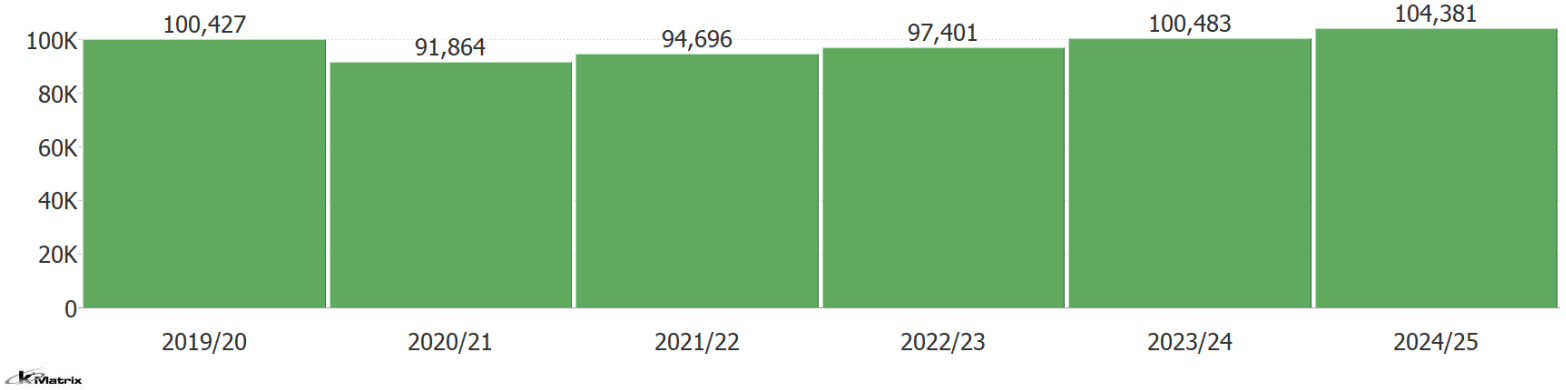


Figure 3.6: Green & Blue Infrastructure UK – Total Number of Employees



Figures 3.5 and 3.6 illustrate the annual number of employees within the Green & Blue Infrastructure sector for both the UK and London. During the peak of the pandemic in the year between 2019/20 and 2020/21, the number of employees in the London market contracted by -9.4% and the UK market by -8.5%. London employment grew by 8.3% and the UK by 7.2% between 2022/23 and 2024/25. Overall, the London employee base has grown 3.8%, and the UK by 3.9% between 2019/20 and 2024/25.

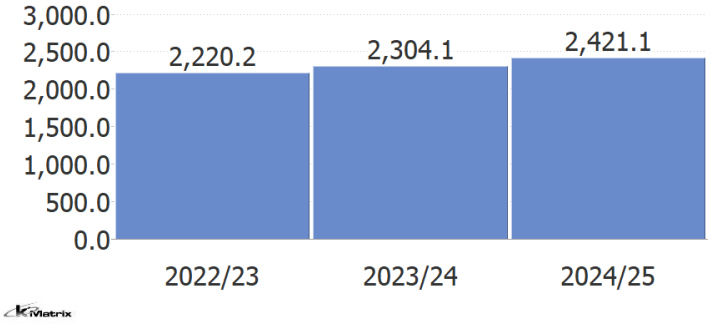
3. 2 London's Green & Blue Infrastructure Market Analysis

This section of the report analyses London's Green & Blue Infrastructure Market (Level 1 for this dataset) and Level 2.

3.2.1 Green & Blue Infrastructure Compared by Year

In this section of the report London's Green & Blue Infrastructure performance is compared for the last three years for the three key measures of Sales, Employment and Growth.

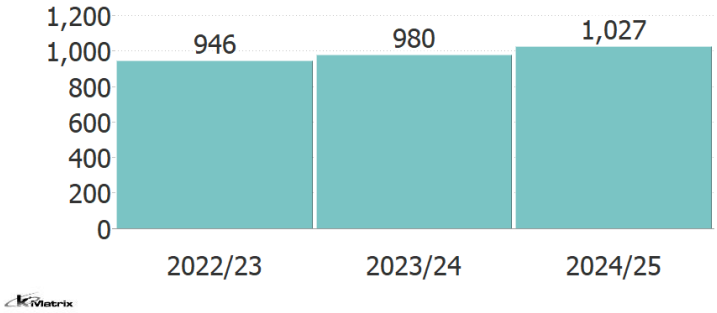
Figure 3.7: Sales 2022/23 to 2024/25 in £m



London's Green & Blue Infrastructure sales in 2024/25 were £2.4bn, up from £2.2bn in 2022/23.

Annual sales growth in London's Green & Blue Infrastructure sector was 3.8% from 2022/23 to 2023/24, and 5.1% from 2023/24 to 2024/25. In comparison UK sales growth in Green & Blue Infrastructure was 3.3% and 4.4%, respectively.

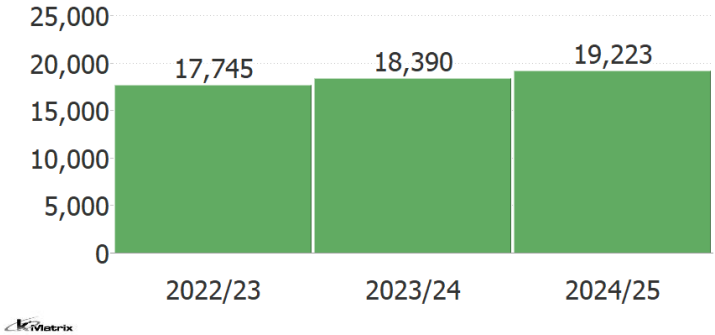
Figure 3.8: Companies 2022/23 to 2024/25



London's Green & Blue Infrastructure company count in 2024/25 was 1,027, up from 946 in 2022/23.

Annual company growth in London's Green & Blue Infrastructure sector was 3.6% from 2022/23 to 2023/24, and 4.8% from 2023/24 to 2024/25. In comparison UK company growth in Green & Blue Infrastructure was 3.2%, and 4.3%, respectively.

Figure 3.9: Employment 2022/23 to 2024/25



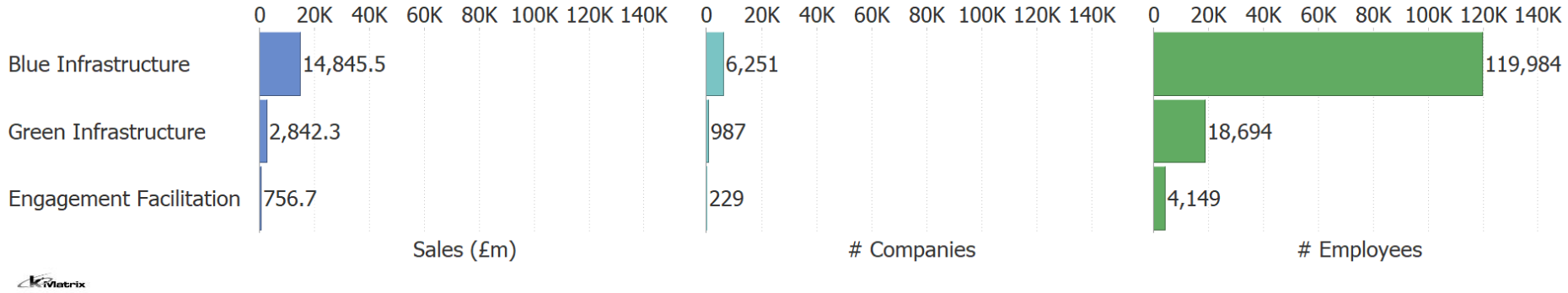
London's Green & Blue Infrastructure employment in 2024/25 was 19,223, up from 17,745 in 2022/23.

Annual employment growth in London's Green & Blue Infrastructure was 5.6% from 2022/23 to 2023/24, and 4.5% from 2023/24 to 2024/25. In comparison UK employment growth in Green & Blue Infrastructure was 3.2% and 3.9% respectively.

3.2.2 Green & Blue Infrastructure at Level 2

The analysis in this section of the report focuses on the Level 2 split of Green & Blue Infrastructure in London for each of the last three years.

Figure 3.10: Sales, Companies and Employees 2024/25 in £m (Level 2)



The Green & Blue Infrastructure sector is split into three Level 2 sub-sectors, of which Blue Infrastructure accounted for 76% of sales (79% in 2022/23), 81% of Companies (83% in 2022/23), and 81% of Employees (83% in 2022/23) (Figure 3.10).

Table 3.1: London and UK Total GDP Compared to G&BI Level 2 Sales 2023/24 – sorted by size of London's Sub-sectors

Level 2 Sub-sector	London's Green & Blue Infrastructure Sales 2023/24	Green & Blue Infrastructure as a % of London's Total GDP	Sub-sector Proportion	UK Green & Blue Infrastructure Sales 2023/24	Green & Blue Infrastructure as a % of UK's Total GDP	Sub-sector Proportion
Blue Infrastructure	£1,795.5m	0.29%	77.9%	£10,825.2m	0.40%	83.1%
Green Infrastructure	£373.9m	0.06%	16.2%	£1,754.0m	0.07%	13.5%
Engagement Facilitation	£134.7m	0.02%	5.8%	£449.2m	0.02%	3.4%
Total	**£2,304.1m**	**0.37%**	**100.0%**	**£13,028.4m**	**0.48%**	**100.0%**

London's 2023/24 Total Gross Domestic Product was £617,916m and the UK's Total Gross Domestic Product was £2,689,853m. London's total GPD and UK's Total GDP values are from the ONS[7] and 2023/24 sector data was used due to lag in data from the ONS.

Sales have been compared with GDP to give an indication of the scale and significance of the sector relative to the whole local economy. Table 3.1 shows that in 2023/24 London's Green & Blue Infrastructure sector contributed a slightly smaller proportion of GDP than the national average, with 0.37% for London compared with 0.48% for the UK.

Within London's three Level 2 sub-sectors, one contributed a smaller proportion to GDP than the national average: Blue Infrastructure with 0.29% compared with 0.48% for the UK; and two contributed a similar proportion to GDP: Green Infrastructure with 0.06% compared with 0.07% for the UK; and Engagement Facilitation with 0.02%, the same as the UK.

Table 3.2: London and UK Business Base Compared to G&BI Level 2 Companies 2024/25

Level 2 Sub-sector	London's Green & Blue Infrastructure Companies 2024/25	Green & Blue Infrastructure as a % of London's Total Companies	Sub-sector Proportion	UK Green & Blue Infrastructure Companies 2024/25	Green & Blue Infrastructure as a % of UK Total Companies	Sub-sector Proportion
Blue Infrastructure	836	0.16%	81.4%	4,579	0.17%	84.6%
Green Infrastructure	150	0.03%	14.6%	688	0.03%	12.7%
Engagement Facilitation	42	0.01%	4.0%	146	0.01%	2.7%
Total	**1,027**	**0.19%**	**100.0%**	**5,412**	**0.20%**	**100.0%**

The total number of enterprises in London in 2024 was 530,815 and the total number of enterprises in the UK in 2024 was 2,645,840. London's economically active people and UK's economically active people values are from Nomis[8].

Table 3.2 shows that in 2024/25 London's Green & Blue Infrastructure sector Companies contributed a similar proportion to the number of Total Enterprises to the national average, with 0.19% for London compared with 0.20% for the UK.

[7] https://www.ons.gov.uk/economy/grossdomesticproductgdp/datasets/regionalgrossdomesticproductlocalauthorities

[8] https://www.nomisweb.co.uk/reports/lmp/gor/2013265927/subreports/nrhi_time_series/report.aspx?

Within London's three Level 2 sub-sectors, all three contributed a similar proportion of Companies to the national average: Blue Infrastructure with 0.16% compared with 0.17% for the UK; Green Infrastructure with 0.03% the same as the UK; and Engagement Facilitation with 0.01%, the same as the UK.

Table 3.3: London and UK Economically Active People Compared to G&BI Level 2 Employment 2024/25

Economically Active People	London's Economically Active People (Feb-Apr 2024): 5,019,000			UK's Economically Active People (Feb-Apr 2024): 34,872,000		
Level 2 Sub-sector	**London's Green & Blue Infrastructure Employees 2024/25**	**Green & Blue Infrastructure as a % of London's Total Economically Active People**	**Sub-sector Proportion**	**UK Green & Blue Infrastructure Employees 2024/25**	**Green & Blue Infrastructure as a % of UK Total Economically Active People**	**Sub-sector Proportion**
Blue Infrastructure	15,619	0.31%	81.3%	88,746	0.25%	85.0%
Green Infrastructure	2,828	0.06%	14.7%	13,038	0.04%	12.5%
Engagement Facilitation	776	0.02%	4.0%	2,596	0.01%	2.5%
Total	**19,223**	**0.38%**	**100.0%**	**104,380**	**0.30%**	**100.0%**

The total number of economically active people in London in 2024 was 5,019,000 and the total number of economically active people in the UK in 2024 was 34,872,000. London's economically active people and UK's economically active people values are from Nomis[9].

Table 3.3 shows that in 2024/25 London's Green & Blue Infrastructure sector Employees contributed a larger proportion to the number of Economically Active People than the national average, with 0.38% for London compared with 0.30% for the UK.

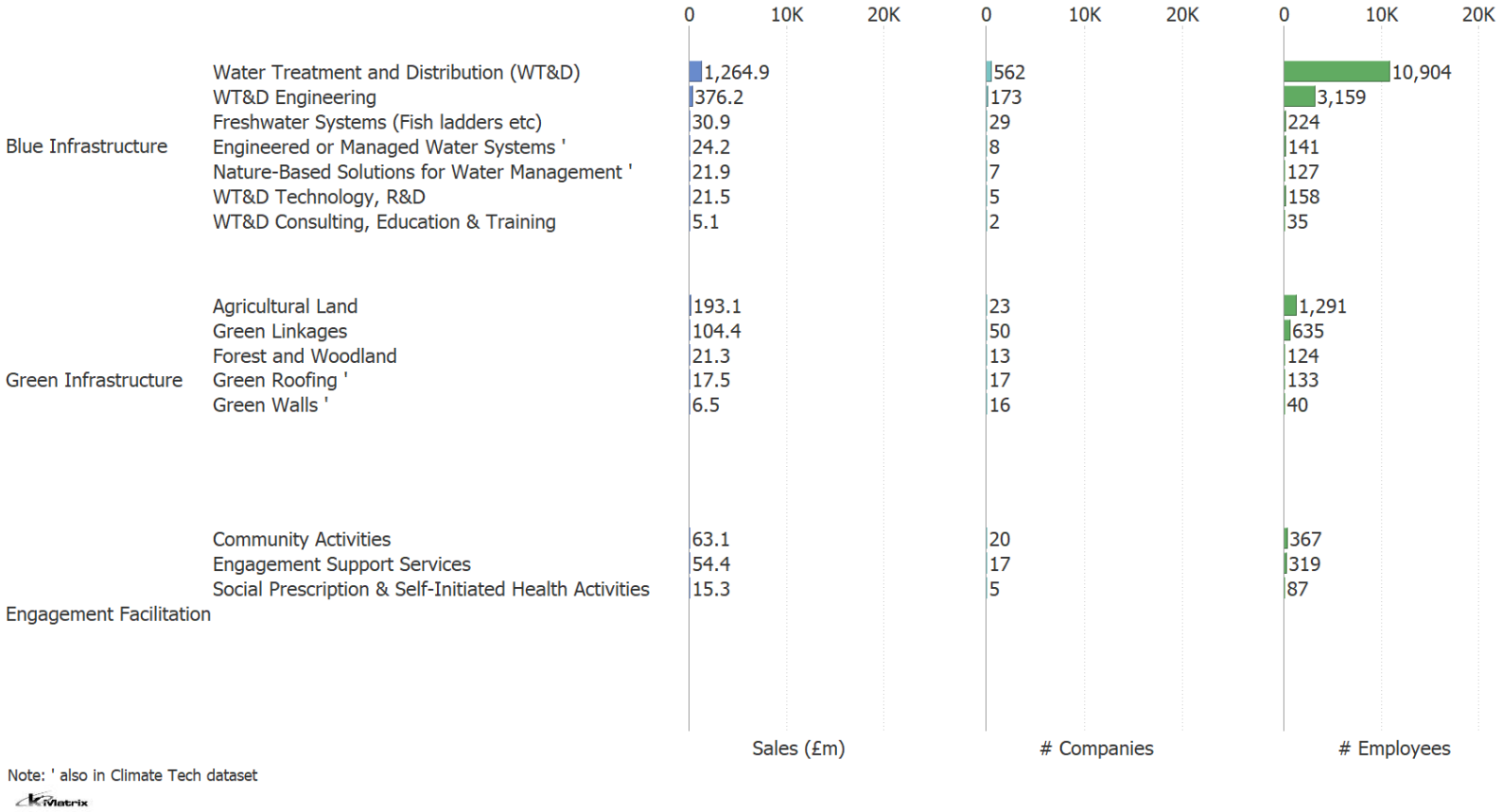
Within London's Level 2 sub-sectors, all three contributed a larger proportion of Employees than the national average: Blue Infrastructure with 0.31% compared with 0.25% for the UK; Green Infrastructure with 0.06% compared with 0.04% for the UK; and Engagement Facilitation with 0.02%, compared with 0.01% for the UK.

[9] https://www.nomisweb.co.uk/reports/lmp/gor/2013265927/subreports/nrhi_time_series/report.aspx?

3.2.3 Green & Blue Infrastructure Level 3 Sub-sectors

In this section we look at the Green & Blue Infrastructure Level 2 sub-sectors split into their Level 3 sub-sectors. For reference, sub-sectors marked with ' are also present in the Climate Tech dataset (Section 1). Those sub-sectors which have the same sub-sector heading as LCEGS but do not have an * mark, have been altered from the LCEGS definition. Appendix 1 includes definitions for sub-sectors within each section.

Figure 3.11: Sales in £m, Companies and Employees 2024/25 (Level 3)



Note: ' also in Climate Tech dataset

Blue Infrastructure is further sub-divided into seven sub-sectors, of which two account for 94% of sales (94% in 2022/23), 93% of companies (94% in 2022/23), and 95% of employees (95% in 2022/23), (Figure 3.11). These are Water Treatment and Distribution 72% (72% in 2022/23), and Water Treatment and Distribution Engineering 21% (22% in 2022/23).

Both of these sub-sectors grew between 2022/23 and 2024/25: Water Treatment and Distribution sales from £1.26bn to £1.33bn; companies from 562 to 593; and employees from 10,904 to 11,513; and Water Treatment and Distribution Engineering sales from £376m to £397m; companies from 173 to 182; and employees from 3,159 to 3,336.

Green Infrastructure is further sub-divided into five sub-sectors, of which two account for 87% of sales (87% in 2022/23), 61% of companies (62% in 2022/23), and 87% of employees (87% in 2022/23). These are Agricultural Land 59% (56% in 2022/23), and Green Linkages 28% (30% in 2022/23).

Both of these sub-sectors grew between 2022/23 and 2024/25: Agricultural Land sales from £193m to £257; companies from 23 to 30; and employees from 1,291 to 1,738; and Green Linkages sales from £104m to £121m; companies from 50 to 61; and employees from 635 to 724.

Engagement Facilitation is further sub-divided into three sub-sectors, of which two account for 89% of sales (88% in 2022/23), 88% of companies (88% in 2022/23), and 89% of employees (89% in 2022/23). These are Community Activities 48% (48% in 2022/23), and Engagement Support Services 41% (41% in 2022/23).

Both of these sub-sectors grew between 2022/23 and 2024/25: Community Activities sales from £63m to £66; companies remained steady at 20; and employees grew from 367 to 369; and Engagement Support Services sales from £54m to £57m; companies remained steady at 17; and employees grew from 319 to 320.

3.2.4 London's Green & Blue Infrastructure Historic Growth

In Section 3.1 annual growth in London's Green & Blue Infrastructure sales, employment and companies was compared with growth in the UK's Green & Blue Infrastructure sector as a whole for 2022/23 to 2024/25. This section includes summaries of how sub-sector growth in London compares with the UK. A detailed table of Lonon's annual growth by sub-sector is available in the Companion Dataset.

While annual growth in the Green & Blue Infrastructure sector as a whole has varied between 3.6% and 5.1% for each of the three parameters, there is considerable variation in growth between the Level 3 sub-sectors. This reflects London's strengths and its share of these sub-sector markets, all of which are growing at different rates.

The higher growth rates for sub-sectors in London are a reflection of higher growth rates in the UK market and the opportunities that are being created by drivers of growth including policy, regulation and consumer choices. Most sub-sectors in London have growth rates within two percentage points of the UK growth rates, the four main exceptions of large sub-sectors where London sales growth was stronger than the UK for at least one year are shown in Table 3.4 and are:

- Freshwater Systems, where the London sales growth rates were 11.5% between 2022/23 and 2023/24 and 18.8% between 2023/24 and 2024/25 and the UK growth rates were 10.0% between 2022/23 and 2023/24 and 14.0% between 2023/24 and 2024/25
- Agricultural Land, where the London sales growth rates were 11.4% between 2022/23 and 2023/24 and 19.6% between 2023/24 and 2024/25 and the UK growth rates were 10.6% between 2022/23 and 2023/24 and 14.2% between 2023/24 and 2024/25
- Green Roofing, where the London sales growth rates were 12.3% between 2022/23 and 2023/24 and 21.1% between 2023/24 and 2024/25 and the UK growth rates were 11.1% between 2022/23 and 2023/24 and 15.0% between 2023/24 and 2024/25
- Green Walls, where the London sales growth rates were 9.4% between 2022/23 and 2023/24 and 18.2% between 2023/24 and 2024/25 and the UK growth rates were 8.7% between 2022/23 and 2023/24 and 13.4% between 2023/24 and 2024/25

Table 3.4: Sub-sectors where London's G&BI Sales growth was stronger than the UK for at least one year between 2022/23 to 2024/25

Level 3 sub-sector	London Sales Growth 2022/23 to 2023/24	UK Sales Growth 2022/23 to 2023/24	London Sales Growth 2023/24 to 2024/25	UK Sales Growth 2023/24 to 2024/25
Freshwater Systems	11.5%	10.0%	18.8%	14.0%
Agricultural Land	11.4%	10.6%	19.6%	14.2%
Green Roofing'	12.3%	11.1%	21.1%	15.0%
Green Walls'	9.4%	8.7%	18.2%	13.4%

Note: ' also in Climate Tech dataset

The five main exceptions where London growth was weaker than the UK for at least one year are shown in Table 3.5 and are:

- Engineered or Managed Water Systems, where the London sales growth rates were 1.5% between 2022/23 and 2023/24 and 2.7% between 2023/24 and 2024/25 and the UK growth rates were 1.3% between 2022/23 and 2023/24 and 6.6% between 2023/24 and 2024/25
- Nature-Based Solutions for Water Management, where the London sales growth rates were 1.6% between 2022/23 and 2023/24 and 2.7% between 2023/24 and 2024/25 and the UK growth rates were 1.5% between 2022/23 and 2023/24 and 6.0% between 2023/24 and 2024/25
- Community Activities, where the London sales growth rates were 1.5% between 2022/23 and 2023/24 and 2.7% between 2023/24 and 2024/25 and the UK growth rates were 0.2% between 2022/23 and 2023/24 and 6.7% between 2023/24 and 2024/25
- Engagement Support Services, where the London sales growth rates were 1.5% between 2022/23 and 2023/24 and 2.7% between 2023/24 and 2024/25 and the UK growth rates were 1.1% between 2022/23 and 2023/24 and 6.1% between 2023/24 and 2024/25
- Social Prescription & Self-Initiated Health Activities, where the London sales growth rates were 1.5% between 2022/23 and 2023/24 and 2.6% between 2023/24 and 2024/25 and the UK growth rates were 3.1% between 2022/23 and 2023/24 and 9.7% between 2023/24 and 2024/25

Table 3.5: Sub-sectors where London's G&BI Sales growth was weaker than the UK for at least one year between 2022/23 to 2024/25

Level 2 sub-sector	London Sales Growth 2022/23 to 2023/24	UK Sales Growth 2022/23 to 2023/24	London Sales Growth 2022/23 to 2023/24	UK Sales Growth 2022/23 to 2023/24
Engineered or Managed Water Systems '	1.5%	1.3%	2.7%	6.0%
Nature-Based Solutions for Water Management '	1.6%	1.5%	2.7%	6.0%
Community Activities	1.5%	0.2%	2.7%	6.7%
Engagement Support Services	1.5%	1.1%	2.7%	6.1%
Social Prescription & Self-Initiated Health Activities	1.5%	3.1%	2.6%	9.7%

Note: ‘ also in Climate Tech dataset

Growth in London sub-sectors across the 3-year reporting period is generally within two percentage points of growth in the UK. The four exceptions of large sub-sectors where London growth is more than two percentage points stronger than the UK are shown in Table 3.6 and are:

- Freshwater Systems, where the London sales growth rate was 32.4% between 2022/23 and 2024/25 and the UK growth rate was 25.4% between 2022/23 and 2024/25
- Agricultural Land, where the London sales growth rate was 33.3% between 2022/23 and 2024/25 and the UK growth rate was 26.3% between 2022/23 and 2024/25
- Green Roofing, where the London sales growth rate was 36.0% between 2022/23 and 2024/25 and the UK growth rate was 27.7% between 2022/23 and 2024/25
- Green Walls, where the London sales growth rate was 29.2% between 2022/23 and 2024/25 and the UK growth rate was 23.3% between 2022/23 and 2024/25

Table 3.6: Sub-sectors where London’s G&BI average Sales growth across the 3-year reporting period was stronger than the UK between 2022/23 to 2024/25

Level 2 sub-sector	London Sales Growth 2022/23 to 2024/25	UK Sales Growth 2022/23 to 2024/25
Freshwater Systems	32.4%	25.4%
Agricultural Land	33.3%	26.3%
Green Roofing’	36.0%	27.7%
Green Walls’	29.2%	23.3%

Note: ‘ also in Climate Tech dataset

The three exceptions where London growth is more than two percentage points weaker than the UK are shown in Table 3.7 and are:

- Engineered or Managed Water Systems, where the London sales growth rate was 4.2% between 2022/23 and 2024/25 and the UK growth rate was 7.3% between 2022/23 and 2024/25

- Nature-Based Solutions for Water Management, where the London sales growth rate was 4.3% between 2022/23 and 2024/25 and the UK growth rate was 7.6% between 2022/23 and 2024/25
- Community Activities, where the London sales growth rate was 4.3% between 2022/23 and 2024/25 and the UK growth rate was 7.0% between 2022/23 and 2024/25
- Engagement Support Services, where the London sales growth rate was 4.3% between 2022/23 and 2024/25 and the UK growth rate was 7.3% between 2022/23 and 2024/25
- Social Prescription & Self-Initiated Health Activities, where the London sales growth rate was 4.1% between 2022/23 and 2024/25 and the UK growth rate was 13.0% between 2022/23 and 2024/25
- Forest & Woodland, where the London sales growth rate was 11.1% between 2022/23 and 2024/25 and the UK growth rate was 13.4% between 2022/23 and 2024/25

Table 3.7: Sub-sectors where London's G&BI average Sales growth across the 3-year reporting period was weaker than the UK between 2022/23 to 2024/25

Level 2 sub-sector	London Sales Growth 2022/23 to 2024/25	UK Sales Growth 2022/23 to 2024/25
Engineered or Managed Water Systems '	4.2%	7.3%
Nature-Based Solutions for Water Management '	4.3%	7.6%
Community Activities	4.3%	7.0%
Engagement Support Services	4.3%	7.3%
Social Prescription & Self-Initiated Health Activities	4.1%	13.0%
Forest & Woodland	11.1%	13.4%

Note: ' also in Climate Tech dataset

The highest levels of actual growth in London Green & Blue Infrastructure occurred in Green Roofing (Green Infrastructure); Agricultural Land (Green Infrastructure); Freshwater Systems (Blue Infrastructure); Green Walls (Green Infrastructure); Green Linkages (Green Infrastructure); and Forest and woodland (Green Infrastructure) between 2021/22 and 2023/24.

3.2.5 London's Green & Blue Infrastructure Strengths and Weaknesses

By overlaying the sales for each sub-sector as a proportion of the UK market, the impact of stronger or weaker sales growth can be examined more closely. Figure 3.12 below shows how London compares with the UK for the 15 Level 3 sub-sectors, with regards to size of market and growth across three-years 2022/23 to 2024/25.

The x-axis represents the London/UK sales proportionality factor, which was calculated for each sub-sector by dividing the London sales a percentage of the UK, by 17.8%. This proportionality factor demonstrates where London holds a larger or smaller share of the UK market than would be expected, where:

- 1 = 17.8% of the UK market
- >1 = larger than 17.8% share
- <1 = smaller than 17.8% share

The y-axis represents the growth rate of London's Level 3 sub-sectors compared with the UK. This was calculated by dividing the 3-year growth rate of London by the average UK growth rate. This growth rate factor demonstrates which sub-sectors have a stronger or slower growth rate than the UK, where:

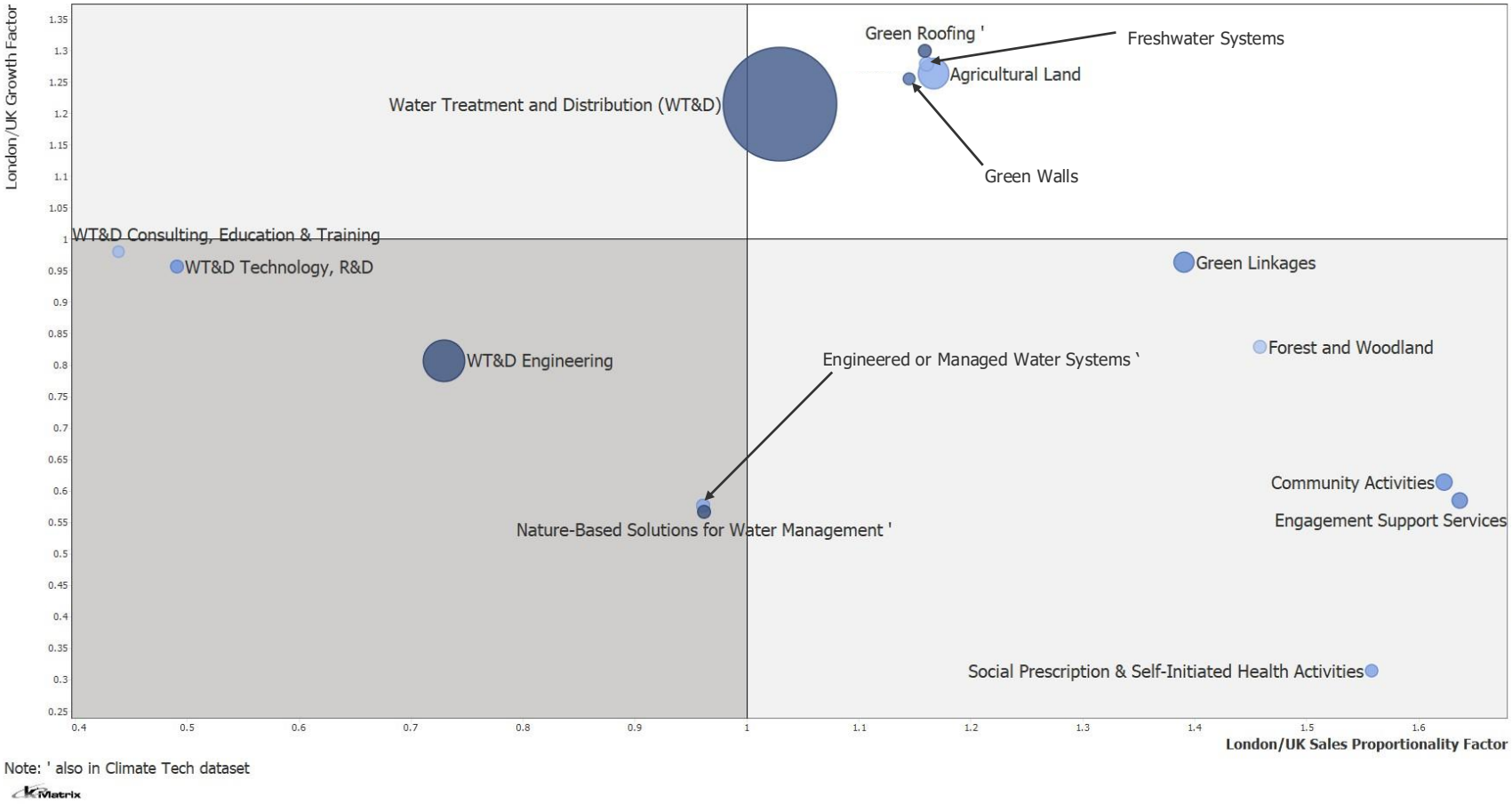
- 1 = the UK growth rate
- >1 = stronger than the UK average growth
- <1 = weaker than UK growth

The graph is split into four quadrants along 1 on each axis, with sub-sectors in each demonstrating:

- Top right = larger market share than expected and stronger growth than the UK average
- Bottom Right = larger market share than expected, but weaker growth than the UK average
- Top left = smaller market share than expected, but stronger growth than the UK average
- Bottom left = smaller market share than expected and weaker growth than the UK average

The bubbles represent the 15 Level 3 sub-sectors and are sized by 2023/24 sales £m, illustrating the relative sizes of each sub-sector.

Figure 3.12: London/UK Sales proportionality factor vs London/UK Growth factor of Level 2 Sub-sectors, Bubbles Sized by Sales £m



Note: ' also in Climate Tech dataset

Figure 3.12 clearly illustrates the larger relative proportion of sales and the strong growth of Green Roofing, which grew by 36.0% compared with the UK growth of 27.7%; Green Walls (29.5% vs. 23.3%); Freshwater Systems (32.4% vs. 25.4%); and Agricultural Land (33.3% vs. 26.3%). Conversely, Water Treatment and Distribution Engineering is both smaller than average for the market (13.0% vs. 17.8%) and saw slower growth than the UK average (5.5% vs. 6.9%). Both Nature-based Solutions for Water

Management and Engineered or Managed Water Systems saw slower growth than the UK average of 4.3% vs. 7.6% and 4.2% vs. 7.3% respectively.

3.2.6 London's Green & Blue Infrastructure Forecast Growth

Table 8 shows sales growth forecasts (annual percentage growth from the previous year) for 2025/26 through to 2029/30. The growth rates refer to the growth expected during the financial year listed. Forecast growth for the majority of sub-sectors is generally consistent with levels of historical growth, but as forecasts stretch out beyond 2029/30, they inevitably tend to be less robust. The growth rates would be applied to the year indicated, so for example, the 2025/26 growth rate indicates the expected growth between the 2024/25 and 2025/26 sales figures.

Table 3.8: London's G&BI Forecast Sales (£m) and Growth 2025/26 to 2029/30

	Level 2	Sales £m 2024/25	Forecast growth %	Forecast Sales £m 2025/26	Forecast growth %	Forecast Sales £m 2026/27	Forecast growth %	Forecast Sales £m 2027/28	Forecast growth %	Forecast Sales £m 2028/29	Forecast growth %	Forecast Sales £m 2029/30
Blue Infrastructure	Engineered or Managed Water Systems '	25.3	6.2%	26.8	8.7%	29.2	10.1%	32.1	11.7%	35.9	13.5%	40.7
	Freshwater Systems (Fish ladders etc)	41.0	13.0%	46.3	14.7%	53.1	17.4%	62.3	20.5%	75.1	23.8%	92.9
	Nature-Based Solutions for Water Management '	22.8	6.3%	24.3	9.0%	26.4	10.3%	29.2	11.9%	32.6	13.8%	37.1
	Water Treatment and Distribution (WT&D)	1,334.7	2.9%	1,374.0	3.2%	1,417.6	3.4%	1,466.2	3.7%	1,520.3	4.0%	1,580.6
	WT&D Consulting, Education & Training	5.3	2.9%	5.5	3.2%	5.7	3.4%	5.9	3.7%	6.1	4.0%	6.3
	WT&D Engineering	397.0	2.9%	408.6	3.2%	421.5	3.4%	435.9	3.7%	451.8	3.9%	469.5
	WT&D Technology, R&D	22.7	2.9%	23.4	3.2%	24.1	3.4%	24.9	3.7%	25.8	3.9%	26.8
Engagement Facilitation	Community Activities	65.8	7.0%	70.4	9.8%	77.2	11.3%	85.9	13.1%	97.2	15.1%	112.0
	Engagement Support Services	56.7	6.5%	60.4	9.1%	65.9	10.5%	72.8	12.2%	81.7	14.1%	93.2
	Social Prescription & Self-Initiated Health Activities	15.9	5.8%	16.8	8.2%	18.2	9.4%	19.9	10.8%	22.1	12.5%	24.8
Green	Agricultural Land	257.2	14.5%	294.6	16.4%	342.7	19.3%	408.8	22.7%	501.6	26.2%	632.9

	Forest and Woodland	23.7	8.7%	25.7	11.2%	28.6	13.2%	32.4	15.5%	37.4	18.3%	44.2
	Green Linkages	120.8	9.3%	132.0	11.5%	147.2	13.5%	167.2	16.0%	193.9	18.7%	230.1
	Green Roofing '	23.8	14.9%	27.3	16.8%	31.9	19.5%	38.1	23.1%	46.9	26.8%	59.5
	Green Walls '	8.4	13.9%	9.5	15.6%	11.0	18.5%	13.1	21.8%	15.9	25.3%	19.9
	Total	**2,421.1**	**5.1%**	**2,545.6**	**6.1%**	**2,700.5**	**7.2%**	**2,894.6**	**8.6%**	**3,144.3**	**10.4%**	**3,470.8**

Note: ' also in Climate Tech dataset. Growth is between one year and the next

Table 3.8 show year-on-year growth is expected for all Level 2 sub-sectors, with sector sales forecast to increase from £2.4bn in 2024/25 to £3.5bn in 2029/30.

Figure 3.13 shows the annual forecast growth for London's G&BI market to 2025/26-2029/30 based upon the values in Table 3.8. The growth rates refer to the growth expected during the financial year listed.

Figure 3.13: London's G&BI Forecast Sales Growth 2024/25-2025/26 to 2028/29-2029/30

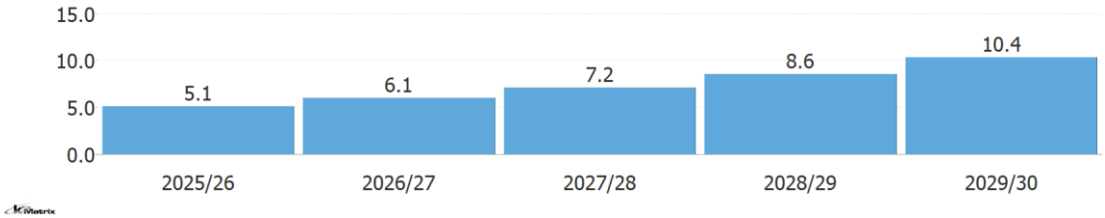


Figure 3.13 shows forecast growth for London's G&BI market, with consistent year-on-year growth predicted throughout the forecast period.

Figure 3.14: UK's G&BI Forecast Sales Growth 2024/25-2025/26 to 2028/29-2029/30

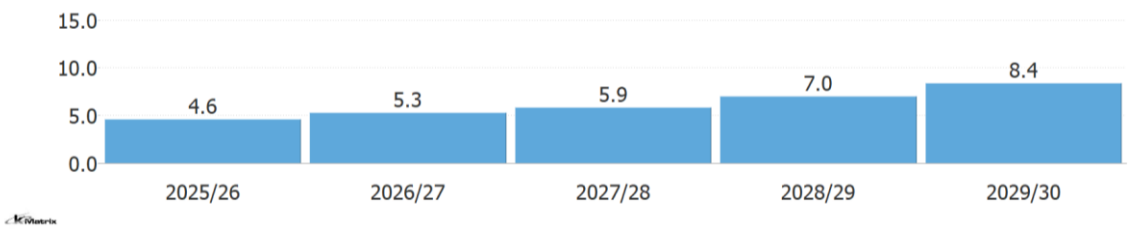


Figure 3.14 shows the annual growth forecast for the UK's G&BI market from 2025/26-2029/30 and illustrates that the forecast growth for London is expected to be stronger than the UK throughout the forecast period from 2025/26 to 2029/30.

Figure 3.15 London's and UK's G&BI year-on-year Sales Growth 2019//20-2020/21 to 2023/24-2024/25 and Forecast Sales Growth 2024/25-2025/26 to 2028/29-2029/30

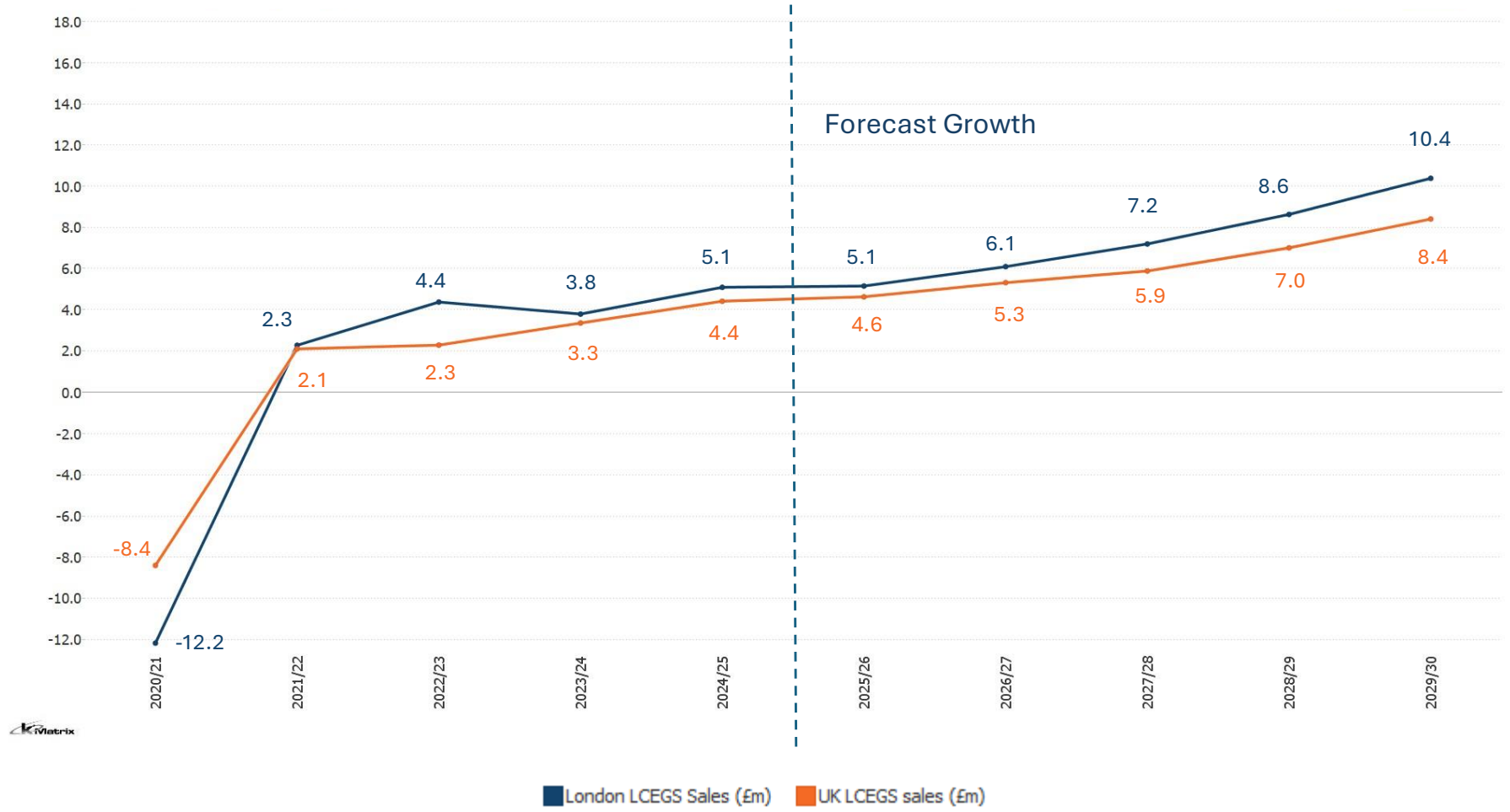
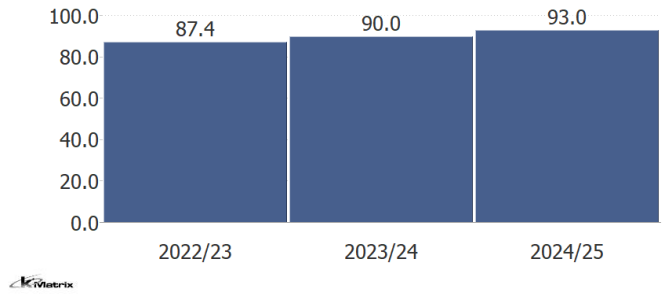


Figure 3.15 shows the timeline for year-on-year growth for the UK and London Sales for Green & Blue Infrastructure from 2020/21 to 2023/24-2024/25, combined with forecast growth to 2028/29-2029/30. London had a larger contraction in 2020/21 than the UK average due to the pandemic and is expected to have stronger growth than the UK average from 2025/26 to 2029/30.

3.2.7 London's Green & Blue Infrastructure Exports

This section of the report addresses London's Green & Blue Infrastructure Exports over the past two years when compared with UK totals and then identifies leading Green & Blue Infrastructure export products and services.

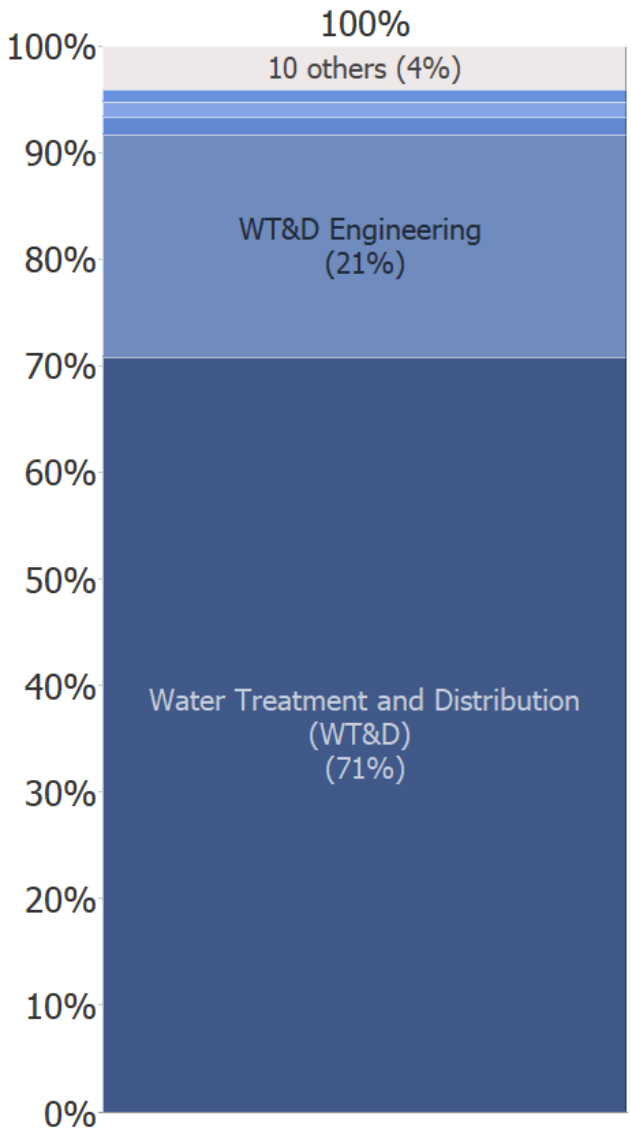
Figure 3.16: London's G&BI Exports (£m) 2022/23 to 2024/25



The value of London's Green & Blue Infrastructure Exports was £93m in 2024/25, up from £87m in 2022/23.

Growth was 3.0% from 2022/23 to 2023/24 and 3.3% from 2023/24 to 2024/25. This is compared to UK growth of approximately 8.2% and 4.4%, respectively.

Figure 3.17: London's Exports (%) by Sub-Sector 2024/25



London represented 12% of all UK Green & Blue Infrastructure exports in 2024/25 (13% in 2023/24). It is lower than London's 18% of overall UK Sales for that year.

Figure 3.17 shows the proportion of London Green & Blue Infrastructure exports by Level 3 sub-sector for 2024/25, with Water Treatment and Distribution 71% (71% in 2022/23); and Water Treatment & Distribution Engineering 21% being the leading sub-sectors and accounting for 96% of all London Green & Blue Infrastructure exports (96% in 2022/23).

In Table 3.9 London's Green & Blue Infrastructure exports are shown by sub-sector for each of the three years of the report and have been expressed as a percentage of that sub-sector's overall Sales

Table 3.9: London's G&BI Exports as a % of Sales 2022/23 to 2024/25

		2022/23			2023/24			2024/25		
Level 2	**Level 3**	**Sales £m**	**Exports £m**	**Exports as a % of Sales**	**Sales £m**	**Exports £m**	**Exports as a % of Sales**	**Sales £m**	**Exports £m**	**Exports as a % of Sales**
Blue Infrastructure	Engineered or Managed Water Systems '	24.2	1.2	5.0%	24.6	1.2	5.0%	25.3	1.3	5.1%
	Freshwater Systems (Fish ladders etc)	30.9	0.7	2.3%	34.5	0.8	2.3%	41.0	0.9	2.3%
	Nature-Based Solutions for Water Management '	21.9	0.5	2.4%	22.2	0.5	2.5%	22.8	0.6	2.5%
	Water Treatment and Distribution (WT&D)	1,264.9	62.3	4.9%	1,300.2	64.1	4.9%	1,334.7	65.8	4.9%
	WT&D Consulting, Education & Training	5.1	0.3	4.9%	5.2	0.3	5.0%	5.3	0.3	5.0%
	WT&D Engineering	376.2	18.4	4.9%	386.6	18.9	4.9%	397.0	19.4	4.9%
	WT&D Technology, R&D	21.5	1.0	4.7%	22.1	1.0	4.7%	22.7	1.1	4.7%
Engagement Facilitation	Community Activities	63.1	0.0	0.0%	64.0	0.0	0.0%	65.8	0.0	0.0%
	Engagement Support Services	54.4	0.0	0.0%	55.2	0.0	0.0%	56.7	0.0	0.0%
	Social Prescription & Self-Initiated Health Activities	15.3	0.0	0.0%	15.5	0.0	0.0%	15.9	0.0	0.0%
Green Infrastructure	Agricultural Land	193.1	0.6	0.3%	215.0	0.7	0.3%	257.2	0.8	0.3%
	Forest and Woodland	21.3	0.2	0.8%	22.1	0.2	0.9%	23.7	0.2	1.0%

	Green Linkages	104.4	1.4	1.4%	110.0	1.5	1.4%	120.8	1.6	1.3%
	Green Roofing '	17.5	0.4	2.5%	19.6	0.4	2.1%	23.8	0.5	2.1%
	Green Walls '	6.5	0.4	5.7%	7.1	0.4	5.5%	8.4	0.5	5.6%
Total		**2,220.2**	**87.4**	**3.9%**	**2,304.1**	**90.0**	**3.9%**	**2,421.1**	**93.0**	**3.8%**

Note: ‘ also in Climate Tech dataset.

Table 3.9 shows the average for 2024/25 is 3.8%, with variability across sub-sectors such as 0% for Engagement support Services, which contrasts with the higher 5.6% for Green Walls. This is a reflection of the wide variety of sub-sectors in the Green & Blue Infrastructure dataset.

3.3 London's Green & Blue Infrastructure Compared with the Rest of the UK's Regions

3.3.1 London's Green & Blue Infrastructure Compared with the UK

Figure 3.18: London and the UK 2024/25 G&BI Sales by Level 2

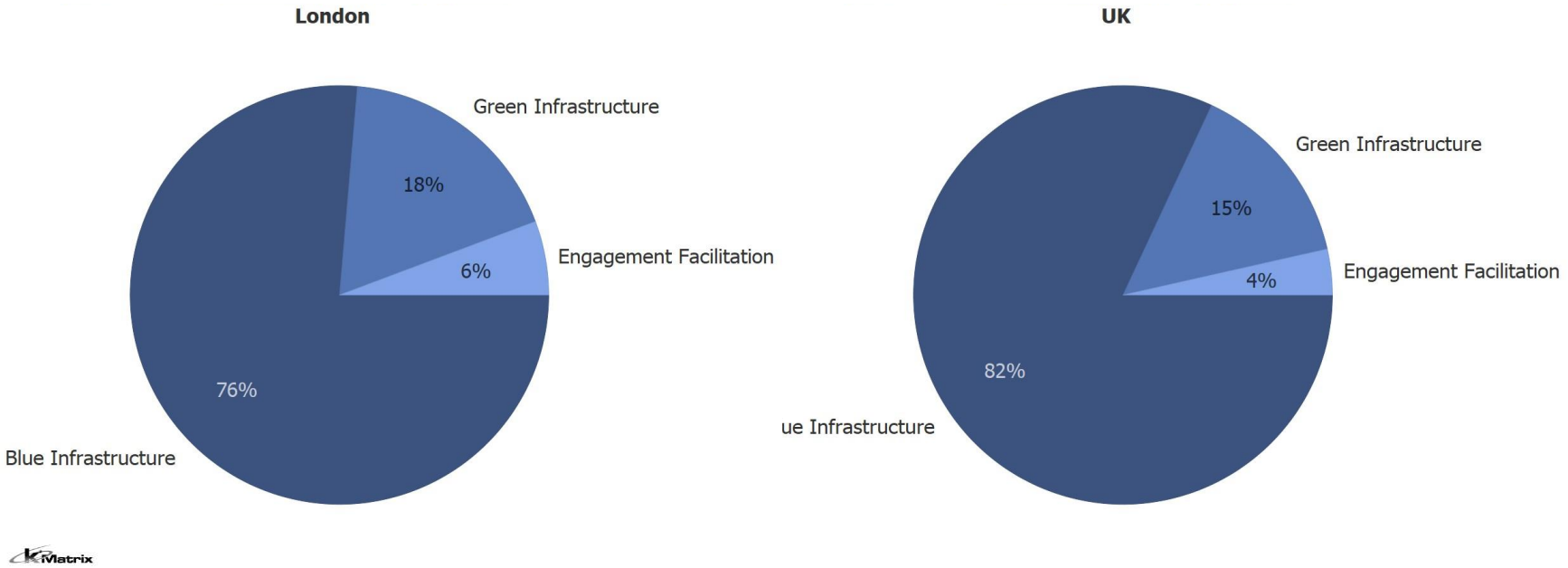


Figure 3.18 compares the profile of London and UK's Green & Blue Infrastructure activities at Level 2 for sales and shows London has a slightly different profile to the UK, with Blue Infrastructure being the largest sub-sector in both London (76%) and the UK (82%), followed by Green Infrastructure (London 18%, UK 15%), and Engagement Facilitation being higher in London than he UK (London 6%, UK 4%).

Figure 3.19: London and the UK 2024/25 G&BI sub-sector Sales by Level 3

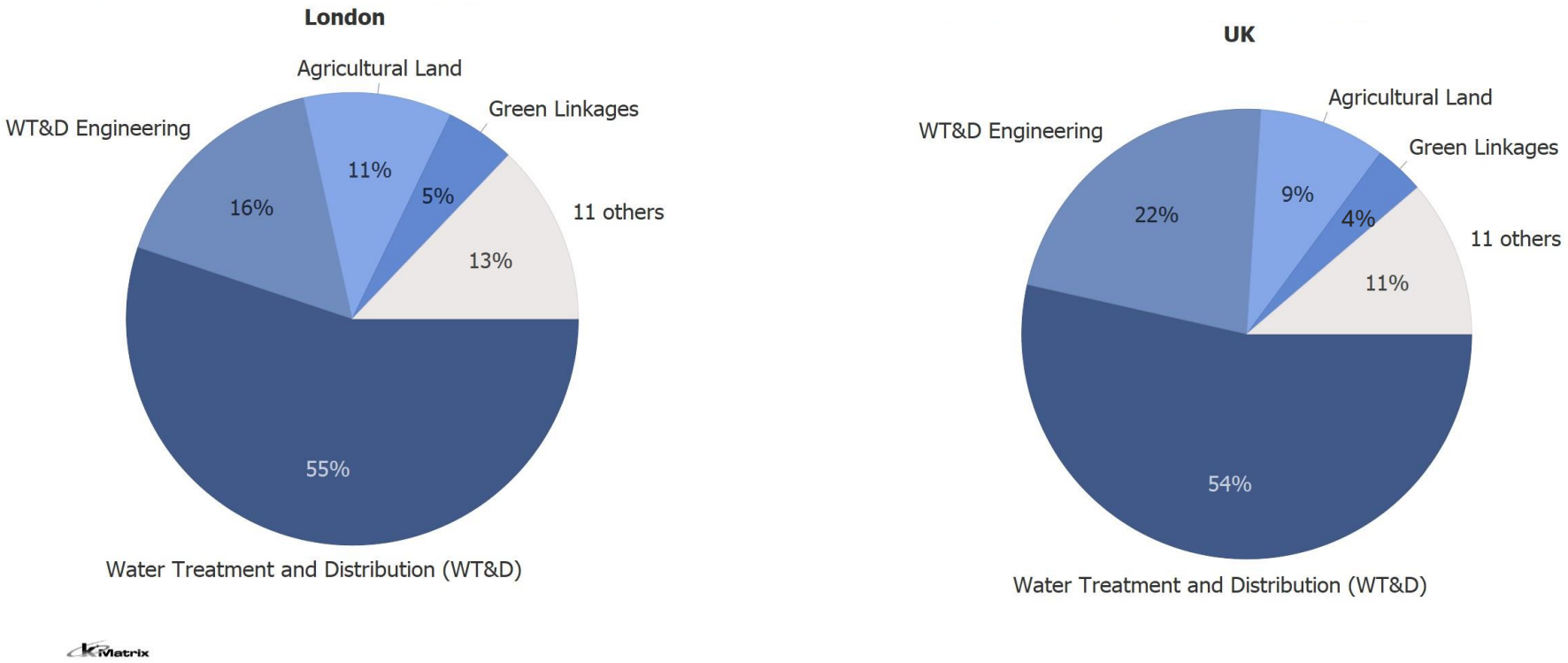


Figure 3.19 extends the analysis by comparing the profile of London and UK's Green & Blue Infrastructure activities at Level 3 for sales. Here too, the split is slightly different, although the largest four sub-sectors for both London and the UK being Water Treatment and Distribution accounting (London 55%, UK 54%); Water Treatment and Distribution Engineering (London 16%, UK 22%); Agricultural Land (London 11%, UK 9%); and Green Linkages (London 5%, UK 4%).

Figure 3.20: UK Regional Sales, Employment and Companies 2024/25 as % of UK

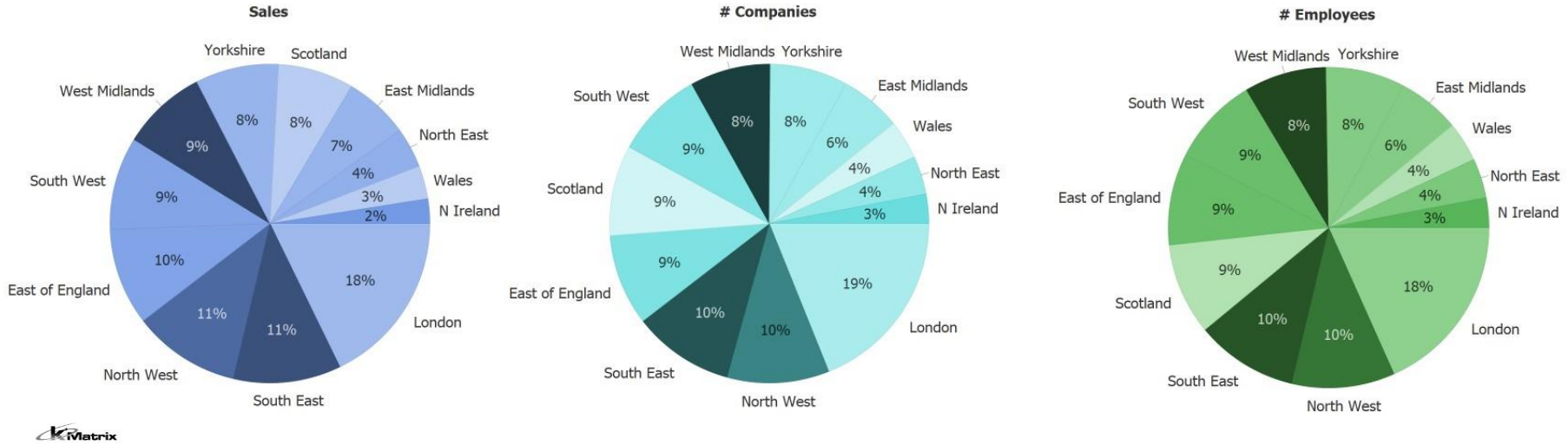


Figure 3.20 compares the "old" UK regions and the Devolved Administrations (for consistency with previous reporting) for sales, companies and employment.

London accounts for 18% of sales, 19% of companies and 18% of employment.

The next largest regions for Green & Blue Infrastructure Sales are the South East, North West and East of England. These same regions are within the top four after London for both number of companies and number of employees.

Figure 3.21: Sales 2024/25 London as % of UK at Level 2

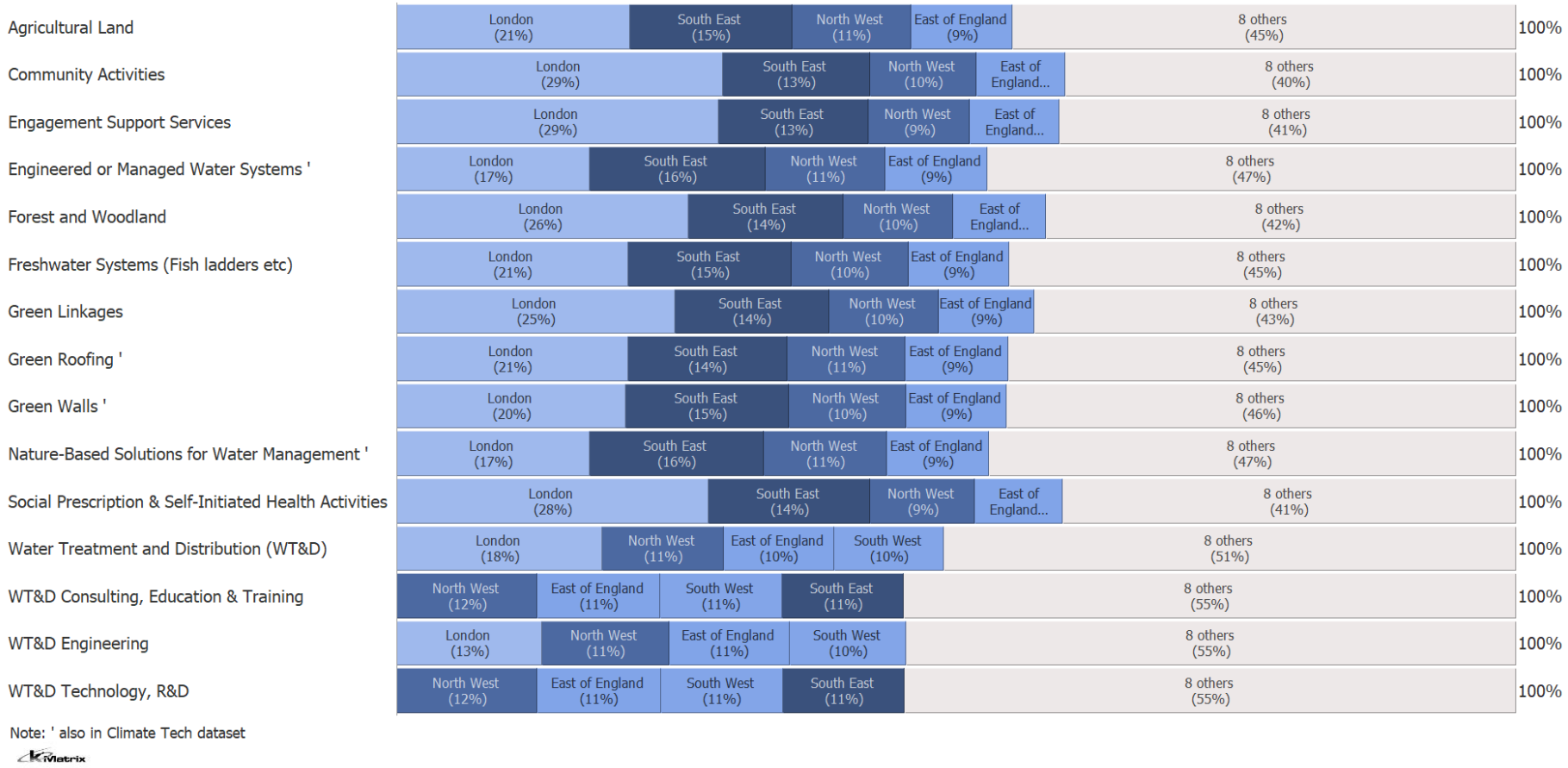


Figure 3.21 then compares the same regions again for 2024/25, but this time by all the Level 3 sub-sectors. This graphic shows how London's 18% of UK Sales is made up from a range of contributions, from Community Activities at 29% to WT&D Consulting, Education & Training at 8%. London is in the top four regions for 13 of the 15 Level 3 sub-sectors. The larger the percentage share of a sub-sector in a region, the higher the degree of supply chain localization in that sub-sector, in that region. The higher the degree of localization, the bigger the opportunity for the development of partnerships and regional cooperation.

London has the highest share of the market in 13 sub-sectors: Agricultural Land (21%); Community Activities (29%); Engagement Support Services (29%); Engineered or Managed Water Systems (17%); Forest and Woodland (26%); Freshwater Systems (21%); Green Linkages (25%); Green Roofing (21%); Green walls (120%); Nature-Based Solutions for Water Management (17%); Social Prescription & Self-Initiated Health Activities (28%); Water Treatment and Distribution (18%); and Water Treatment and Distribution Engineering (13%).

London has the either highest share of the market in the Water Treatment and Distribution Consulting, Education & Training sub-sector (8%) and the seventh highest share of the market in the Water Treatment and Distribution Technology R&D.

3.3.2 London's Impact on Regional Green & Blue Infrastructure Chains and Networks of Supply

In this section we analyse the impact of London's Green & Blue Infrastructure market on other regions of the UK.

This is provided as a measure of the sales within the chains and networks of supply of a region, generated by the Green & Blue Infrastructure market in London.

This analysis was performed by tracking sales of activities within London, through the chains and networks of supply, to determine point of origin and subsequent movement of constituent products or services.

Only value-added activities are included, from components to consultancy, R&D to assembly.

A limitation of the analysis is the activities measured are within the chain and network of supply and represent the traded activities within the sector, as such, untraded academic research is not counted.

The Sales numbers for sub-sectors within regions of the UK have been calculated through the same data triangulation process as other metrics within the study, but with additional locational data overlaid, specifically mapping the movement and trade of goods and services across the country.

This analysis included sources within the core source block, with additional accredited research sources augmenting the data triangulation process, and include:

- Data reported by companies
- Public sector sources
- Private sector sources
- Institutional sources
- Industrial and trade sources
- Academic Data sources (sector specific)
- Advertising and HR
- Financial, legal and investment
- Other (unpublished) sources

Table 3.10: 2023/24 Net benefit of London's G&BI to the Rest of the UK, through chains and networks of supply, (£m)

Level 2	Level 3	London Total Sales (£m) 2023/24	Supply Chain Outside of London (£m)	Supply Chain as % of London
Blue Infrastructure	Engineered or Managed Water Systems '	25.3	10.7	42.2%
	Freshwater Systems (Fish ladders etc)	41.0	15.1	36.9%
	Nature-Based Solutions for Water Management '	22.8	8.5	37.1%
	Water Treatment and Distribution (WT&D)	1,334.7	469.6	35.2%
	WT&D Consulting, Education & Training	5.3	2.2	40.6%
	WT&D Engineering	397.0	146.0	36.8%
	WT&D Technology, R&D	22.7	9.1	40.1%
Engagement Facilitation	Community Activities	65.8	15.6	23.7%
	Engagement Support Services	56.7	23.1	40.8%
	Social Prescription & Self-Initiated Health Activities	15.9	4.6	29.0%
Green Infrastructure	Agricultural Land	257.2	104.1	40.4%
	Forest and Woodland	23.7	7.7	32.4%
	Green Linkages	120.8	36.6	30.3%
	Green Roofing '	23.8	7.8	32.8%
	Green Walls '	8.4	3.1	36.6%
Total		**2,421.1**	**863.6**	**35.7%**

Note: ' also in Climate Tech dataset

Table 3.10 shows the net benefit of the Green & Blue Infrastructure market in London, to UK chains and networks of supply outside of London.

London's Green & Blue Infrastructure market sales in 2023/24 were £2.4bn and generated a further £864m, or an additional 35.7% in terms of sales within the chains and networks of supply across the UK, outside of London.

Sub-sectors in London which generated the highest sales in the chains and networks of supply outside of London were Water Treatment and Distribution (WT&D) with £470m; WT&D Engineering with £146m; Agricultural Land with £104m; and Green Linkages with £37m.

London sub-sectors that generated the largest sales within the chains and network of supply outside of London, as a percentage of additional London sales were Engineered or Managed Water Systems with 42.2%; Engagement Support Services with 40.8%; WT&D Consulting, Education & Training with 40.6%; and Agricultural Land with 40.4%.

The sub-sectors that created the least additional sales were Community Activities with 23.7% and Social Prescription & Self-Initiated Health Activities with 29.0%.

Figure 3.22: Net benefit of London's G&BI to UK regions, through chains and networks of supply (£m)

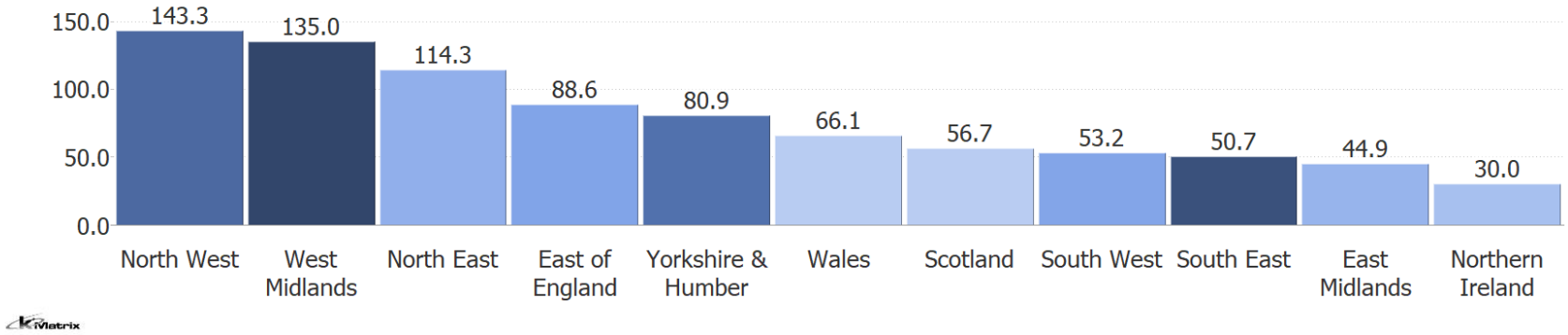


Figure 3.22 shows the net benefit of the Green & Blue Infrastructure market in London, to UK chains and networks of supply outside of London, by region. The greatest beneficiaries of sales generation as a direct result of London activity are:

- The North West with £143m or 5.9% of the London total sales
- The West Midlands with £135m or 5.6% of the London total sales
- The North East with £114m or 4.7% of the London total sales
- The East of England with £89m or 3.7% of the London total sales
- Yorkshire & Humber with £81m or 3.3% of the London total sales
- Wales with £66m or 2.7% of the London total sales

Table 3.11: 2024/25 Net benefit of London's G&BI to UK regions, through chains and networks of supply, by sub-sector (£m)

Level 3	London Total Sales (£m)	North West Benefit (£m)	North East Benefit (£m)	Yorkshire & Humber Benefit (£m)	West Midlands Benefit (£m)	East Midlands Benefit (£m)	East of England Benefit (£m)	South West Benefit (£m)	South East Benefit (£m)	Wales Benefit (£m)	Scotland Benefit (£m)	Northern Ireland Benefit (£m)
Engineered or Managed Water Systems '	25.3	1.6	0.7	1.2	1.4	0.5	0.8	1.2	1.3	1.3	0.2	0.5
Freshwater Systems (Fish ladders etc)	41.0	2.3	1.3	1.3	2.3	0.9	1.7	0.6	1.1	1.7	0.9	0.9
Nature-Based Solutions for Water Management '	22.8	1.6	0.9	1.2	0.9	0.5	0.5	0.7	1.2	0.6	0.4	0.2
Water Treatment and Distribution (WT&D)	1,334.7	88.0	58.3	37.0	76.7	26.9	62.7	25.8	21.2	25.1	33.2	14.8
WT&D Consulting, Education & Training	5.3	0.4	0.2	0.3	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.1
WT&D Engineering	397.0	16.1	27.0	18.6	24.6	6.2	6.8	10.4	7.7	15.7	9.3	3.6
WT&D Technology, R&D	22.7	1.0	1.4	1.3	1.5	0.3	0.4	1.0	0.9	0.8	0.3	0.2
Community Activities	65.8	2.4	2.1	1.2	1.3	0.5	1.1	1.2	3.2	1.3	0.6	0.7
Engagement Support Services	56.7	3.6	1.7	2.9	3.7	1.2	1.7	1.7	2.9	1.9	1.1	0.8
Social Prescription & Self-Initiated Health Activities	15.9	1.1	0.4	0.3	0.5	0.1	0.3	0.2	0.5	0.5	0.3	0.3
Agricultural Land	257.2	18.0	13.9	9.4	16.4	3.8	7.4	6.5	6.1	11.7	6.4	4.5
Forest and Woodland	23.7	1.0	1.2	1.2	0.6	0.4	0.6	0.5	0.7	0.4	0.6	0.5
Green Linkages	120.8	4.5	4.3	4.0	4.0	3.0	3.2	2.6	2.3	3.7	2.7	2.4
Green Roofing '	23.8	1.1	0.6	0.8	0.7	0.4	0.9	0.4	1.0	1.1	0.4	0.4
Green Walls '	8.4	0.5	0.3	0.4	0.3	0.1	0.3	0.2	0.4	0.2	0.2	0.1
Total	**2,421.1**	**143.3**	**114.3**	**80.9**	**135.0**	**44.9**	**88.6**	**53.2**	**50.7**	**66.1**	**56.7**	**30.0**

Note: 'also in Climate Tech dataset.

Table 3.11 shows the significant London sub-sectors which generate large sales outside of London include:

- Water Treatment and Distribution (WT&D) in the North West with £88.0m (6.6%), West Midlands with £76.7m (5.7%), and the East of England with £62.7m (4.7%)

- WT&D Engineering in the North East with £27.0m (6.8%), the West Midlands with £24.6m (6.2%), and Yorkshire & Humber with £18.6m (4.7%)
- Agricultural Land in the North West with £18.0m (7.0%), and the West Midlands with £16.4m (6.4%)

Part of the benefit in the chains and networks of supply come from investment from London companies made into the chains and networks of supply across the country and into Europe. Another element concerns R&D within universities, where London provides financial and practical support for development within industry, additionally, head office functions also play a role. More specifically, project assembly and coordination of major large projects often occurs in London, with companies drawing from new or established chains and networks of supply from across the country, to supply and fulfil significant contracts.

3.4 London's Green & Blue Infrastructure by Local Authority

3.4.1 Green & Blue Infrastructure by Local Authority

This section of the report analyses the Green & Blue Infrastructure market in London's Local Authorities.

Figure 3.23: London's G&BI Sales 2024/25 by Local Authority

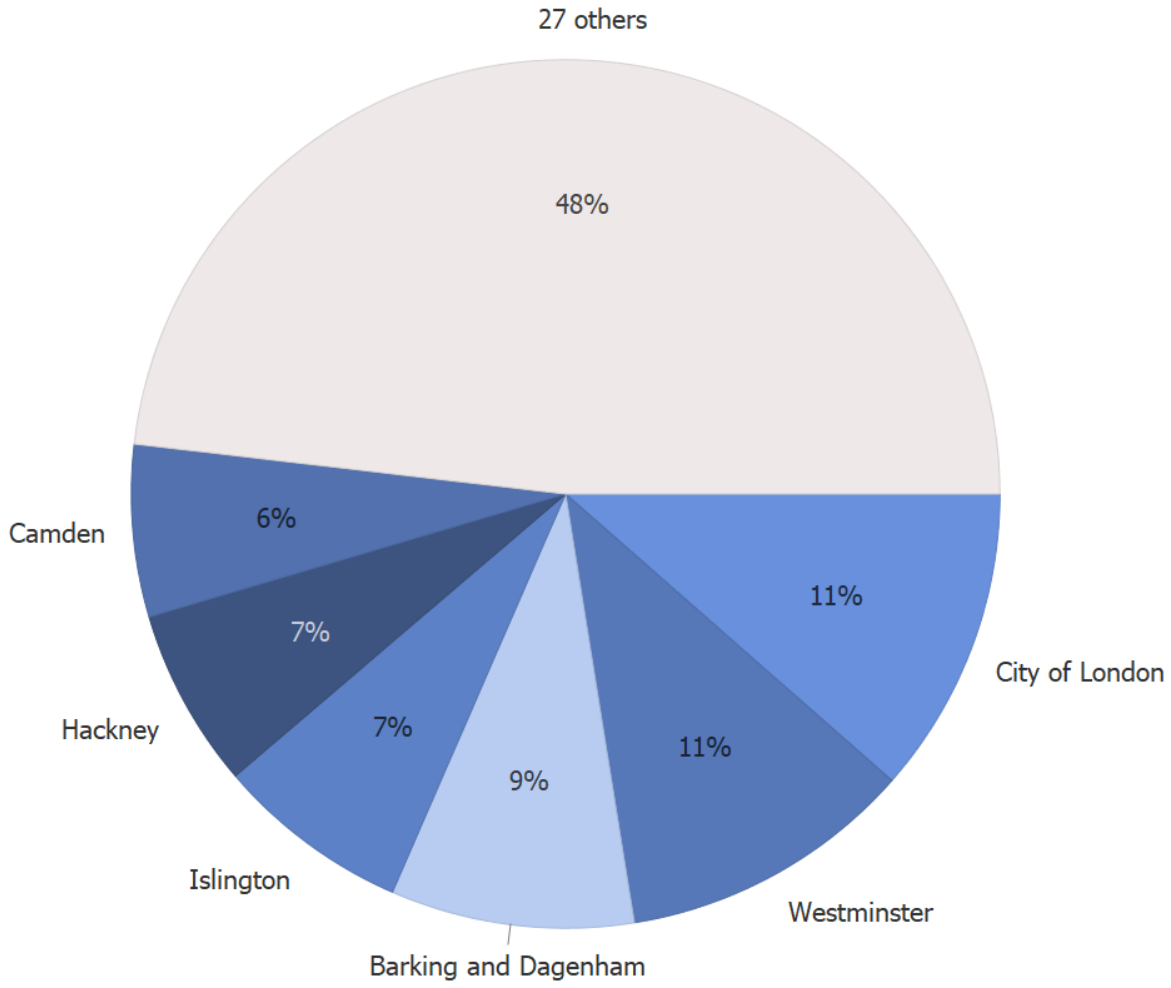


Figure 3.23 shows Green & Blue Infrastructure sales for 2024/25 split by Local Authority. The City of London accounts for 11% of London Green & Blue Infrastructure sales (11% in 2022/23), ahead of Westminster (11%), Barking & Dagenham (9%), and Islington (7%).

Local Authorities are analysed in more detail, by year, by economic measure and by Green & Blue Infrastructure activity in the following section.

3.4.2. Local Authority Analysis by Year and Sub-Sector

Table 3.12: Local Authorities Sales, Companies and Employment from 2022/23 to 2024/25

	Sales £m					# Companies					# Employees				
Local Authority	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**
Barking and Dagenham	207.6	2.7%	213.3	2.8%	219.4	83	2.7%	86	2.7%	88	1,603	2.7%	1,646	2.7%	1,691
Barnet	63.7	3.6%	66.0	4.6%	69.0	28	3.4%	29	4.2%	30	517	3.2%	534	4.1%	556
Bexley	45.0	3.2%	46.5	3.9%	48.3	22	3.2%	22	3.8%	23	399	3.3%	412	3.7%	427
Brent	17.2	4.8%	18.0	8.9%	19.6	7	5.1%	8	8.0%	8	133	4.7%	139	7.4%	150
Bromley	33.2	3.5%	34.4	4.5%	35.9	15	3.4%	16	4.3%	16	287	3.2%	296	4.1%	308
Camden	141.2	4.3%	147.2	5.4%	155.2	61	3.9%	64	5.4%	67	1,139	3.7%	1,181	4.8%	1,238
City of London	254.0	3.4%	262.6	5.7%	277.7	84	3.4%	87	5.7%	92	1,612	3.7%	1,673	5.0%	1,757
Croydon	37.7	3.8%	39.1	5.0%	41.1	14	3.7%	15	5.0%	16	269	3.7%	279	4.8%	293
Ealing	36.9	4.5%	38.6	6.0%	40.9	14	4.2%	15	6.2%	16	266	4.3%	278	5.7%	294
Enfield	41.5	3.8%	43.1	5.0%	45.2	17	3.7%	18	5.0%	19	317	3.7%	329	4.8%	344
Greenwich	43.9	3.4%	45.4	3.9%	47.2	19	3.3%	20	3.7%	20	365	3.3%	377	3.5%	390
Hackney	151.6	3.1%	156.4	3.4%	161.7	74	3.2%	77	3.2%	79	1,401	3.1%	1,444	3.2%	1,490
Hammersmith and Fulham	17.6	6.6%	18.8	8.1%	20.3	7	5.6%	8	8.9%	8	129	5.6%	136	8.0%	147
Haringey	54.2	3.0%	55.9	3.4%	57.8	26	2.9%	27	3.3%	28	507	2.9%	522	3.2%	539
Harrow	33.7	3.5%	34.9	4.2%	36.4	15	3.3%	15	3.8%	16	276	3.3%	285	3.6%	295
Havering	24.3	4.6%	25.4	5.4%	26.8	11	3.9%	12	5.1%	12	207	4.0%	215	4.8%	226
Hillingdon	27.5	4.4%	28.7	8.3%	31.1	11	4.9%	12	7.3%	13	204	4.5%	213	6.6%	227
Hounslow	33.5	6.5%	35.7	8.7%	38.8	15	4.9%	16	8.0%	17	281	4.9%	295	7.5%	317
Islington	162.9	3.4%	168.4	3.8%	174.8	68	3.4%	70	4.1%	73	1,314	3.3%	1,357	4.0%	1,412
Kensington and Chelsea	36.2	3.7%	37.5	5.5%	39.6	15	3.8%	15	5.1%	16	273	3.9%	284	4.8%	298
Kingston upon Thames	31.7	3.4%	32.7	4.8%	34.3	15	3.5%	16	4.2%	17	293	3.3%	303	4.0%	315

Lambeth	45.8	4.7%	48.0	6.4%	51.0	20	4.0%	21	5.6%	22	368	4.2%	383	5.3%	403
Lewisham	15.0	4.1%	15.6	6.7%	16.6	7	4.5%	7	5.0%	7	120	5.4%	126	6.5%	134
Merton	27.8	4.0%	28.9	4.7%	30.3	12	3.6%	13	4.6%	13	232	3.6%	240	4.3%	251
Newham	21.7	5.2%	22.8	7.2%	24.4	9	4.7%	10	7.0%	10	168	4.5%	175	6.5%	187
Redbridge	34.5	3.4%	35.7	4.5%	37.3	15	3.7%	16	1.8%	16	278	4.4%	290	4.1%	302
Richmond upon Thames	66.5	3.6%	68.8	4.1%	71.6	29	3.3%	29	3.9%	31	545	3.3%	563	3.6%	584
Southwark	52.2	4.1%	54.4	6.1%	57.7	22	4.1%	23	6.1%	25	405	4.3%	423	5.7%	447
Sutton	92.5	3.1%	95.3	3.1%	98.2	38	3.1%	39	3.0%	41	731	3.0%	753	2.9%	775
Tower Hamlets	41.9	8.5%	45.4	15.7%	52.5	17	8.5%	19	14.0%	21	296	7.7%	319	13.8%	363
Waltham Forest	14.0	3.5%	14.5	5.5%	15.3	6	3.6%	6	5.0%	7	116	3.5%	120	4.7%	126
Wandsworth	73.5	3.2%	75.9	3.8%	78.7	29	3.2%	30	3.8%	31	558	3.1%	575	3.7%	596
Westminster City	239.7	4.4%	250.2	6.5%	266.3	117	4.0%	122	5.8%	129	2,136	4.1%	2,223	5.4%	2,343

Growth is between one year and the next

Table 3.12 shows the two years of data for Local Authorities for sales, companies and employment. Growth between years is shown in red. Growth between 2022/23 and 2024/25 across all metrics is generally similar at between 3-6% for all Local Authorities, with Tower Hamlets being an exception at 8-15%.

Figure 3.24: London's Local Authorities G&BI Sales 2024/25 (Level 2)

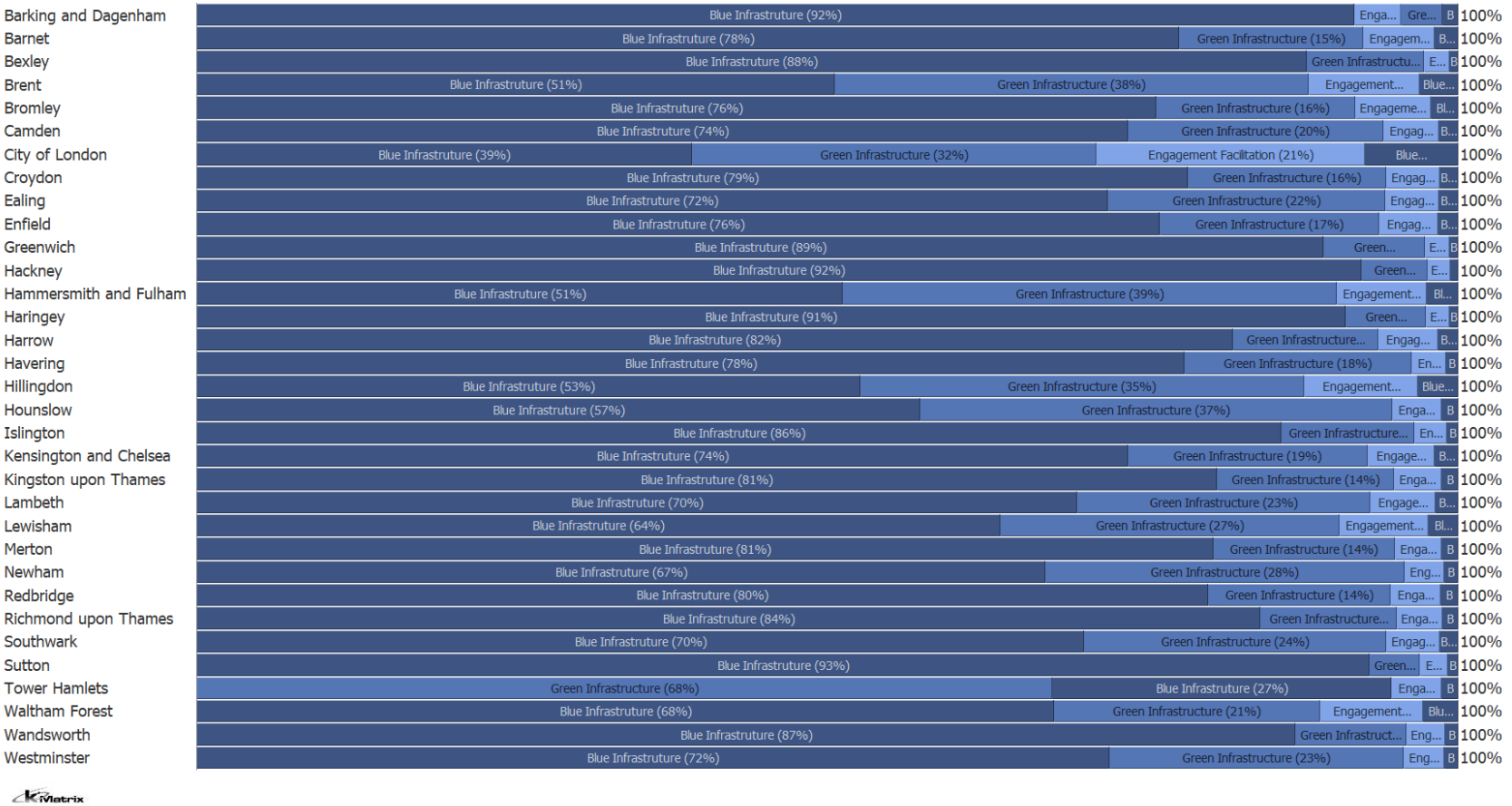


Figure 3.24 shows the different profiles of London's Local Authorities when sales are split at Level 2. There are significant ranges in proportions for Blue Infrastructure 39-92% (40-92% in 2022/23), Green Infrastructure 3-68% (3-63% in 2022/23) and Engagement Facilitation 2-21% (2-22% in 2022/23). This highlights that London's Local Authorities are not a homogeneous market and show subtle regional variations in activity within the Green & Blue Infrastructure sector. This is highlighted by Figure 3.25 below.

Figure 3.25: London's Local Authorities G&BI Sales 2024/25 at Level 3



Figure 3.25 extends the analysis to include the Top 4 sub-sectors for each of London's Local Authorities. Typically, four sub-sectors account for over 85% of the total value, but the sub-sectors and their rankings do differ significantly across the 33 Local Authorities. But there are some consistent sub-sectors running through many of London's Local Authorities and these include Water Treatment and Distribution, Agricultural Land, Water Treatment and Distribution Engineering and Green Linkages, they are represented in most of London's Local Authorities and are consistent with London's top sub-sectors.

3.5 London's Green & Blue Infrastructure by Sub-Region

3.5.1 Green & Blue Infrastructure by London's Sub-Region

This section of the report analyses London's Sub-regions. Boroughs in each Sub-Region are provided in Appendix 4.

Figure 3.26: London's G&BI Sales 2024/25 by Sub-Region

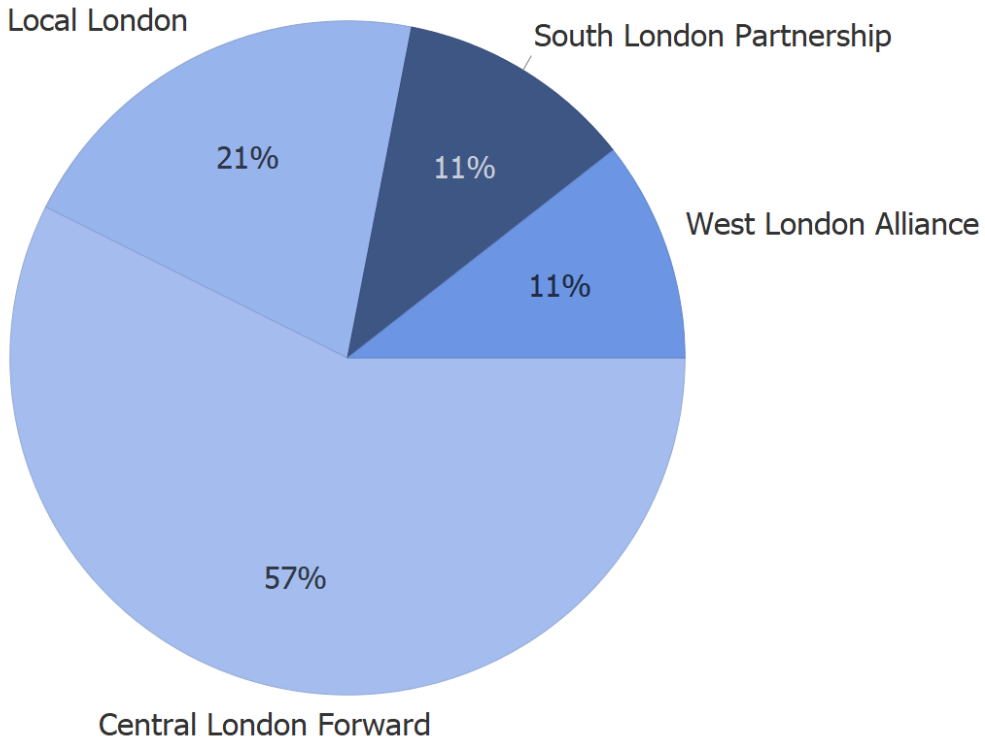


Figure 3.26 shows Green & Blue Infrastructure for 2024/25 split by sub-region for sales. Central London Forward accounts for 57% of London's Green & Blue Infrastructure sales (57% in 2022/23), 58% of companies (57% in 2022/23) and 57% of employment (57% in 2022/23).

London's sub-regions are analysed in more detail, by year, by economic measure and by Green & Blue Infrastructure activity in the following section.

3.5.2 London's Sub-regional Analysis by Year and Sub-Sector

Table 3.13: London's Sub-regions Sales, Companies and Employment from 2022/23 to 2024/25

	Sales £m					# Companies					# Employees				
London Sub-region	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**
Central London Forward	1,268.2	3.9%	1,317.4	5.5%	1,389.7	542	3.8%	562	5.2%	591	10,129	3.8%	10,511	4.8%	11,019
Local London	465.8	3.3%	481.1	3.9%	499.9	198	3.2%	204	3.6%	212	3,739	3.2%	3,860	3.6%	4,001
South London Partnership	256.1	3.5%	264.9	4.0%	275.6	109	3.3%	112	3.9%	117	2,070	3.3%	2,139	3.7%	2,217
West London alliance	230.1	4.6%	240.6	6.4%	256.0	98	4.2%	102	6.0%	108	1,807	4.1%	1,880	5.6%	1,986

Growth is between one year and the next

Table 3.13 shows the two years of growth data for London's sub-regions for sales, companies and employment. Growth between 2022/23 and 2024/25 across metrics are generally similar at between 3-4% for the sub-regions, with the exception of West London Alliance with generally 4-6% growth.

Figure 3.27: London's Sub-regions G&BI Sales 2024/25 (Level 2)

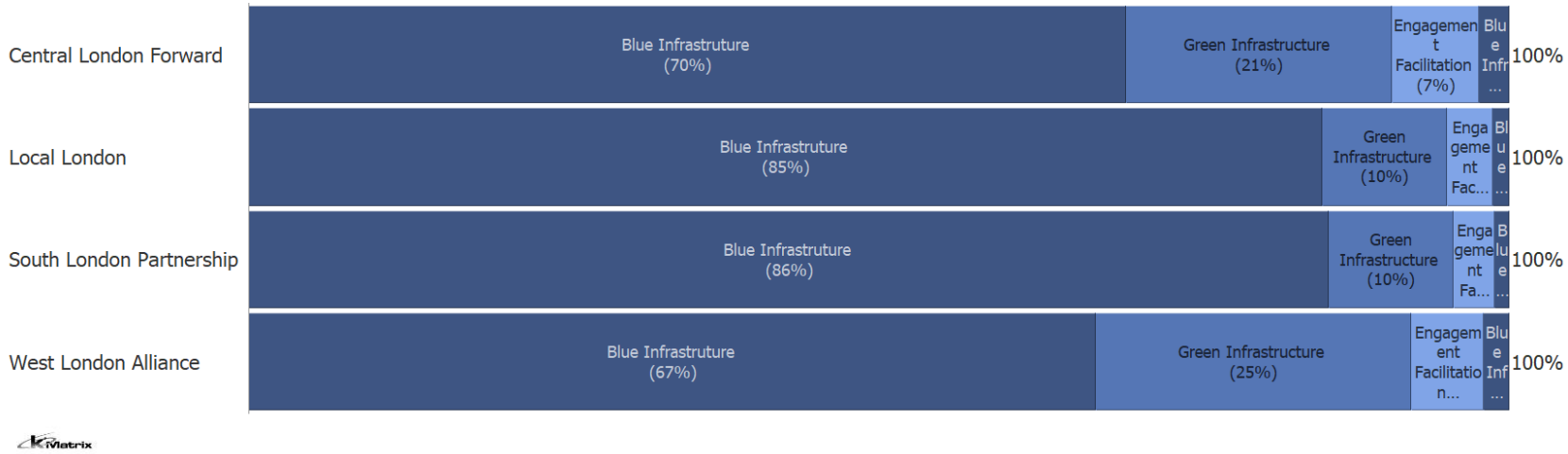


Figure 3.27 shows the different profiles of London's sub-regions when sales are split at Level 2. Blue Infrastructure 67-86% (70-87% in 2022/23), Green Infrastructure 10-25% (8-21% in 2022/23) and Engagement Facilitation 3-7% (3-7% in 2022/23). This highlights that London's Local Authorities are not a homogeneous market and show subtle regional variations in activity within the Green & Blue Infrastructure sector. This is further confirmed by Figure 3.28 below.

Figure 3.28: London's Sub-regions G&BI Sales 2024/25 at Level 2

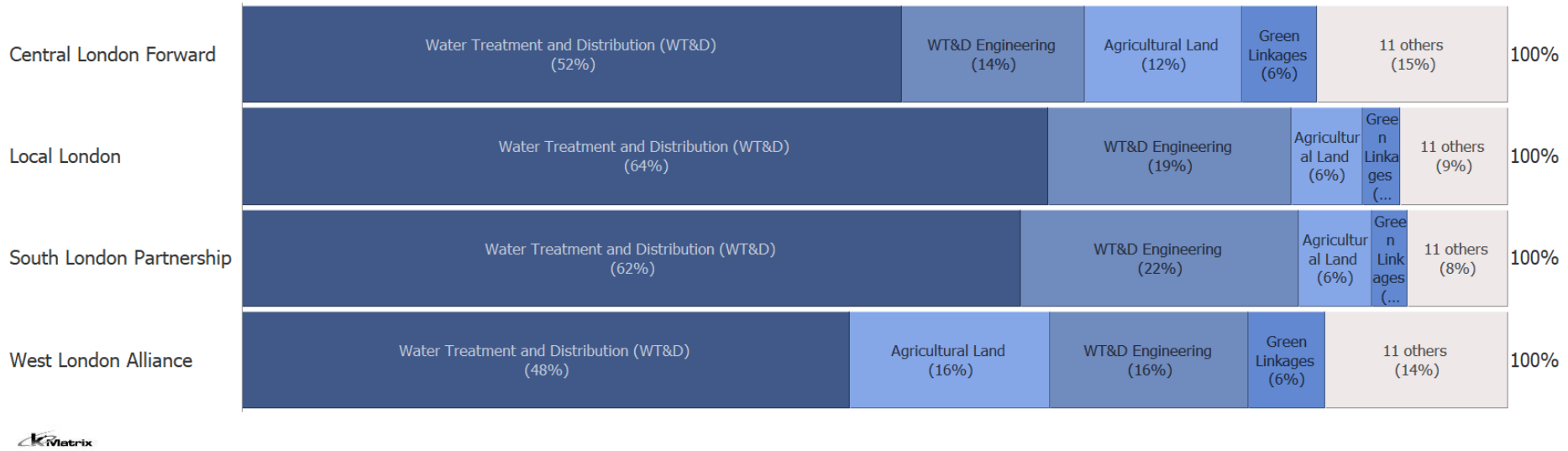


Figure 3.28 extends the analysis to include the Top 4 sub-sectors for each of London's sub-regions. Typically, four sub-sectors account for over 85% of the total value, but the sub-sectors and their rankings do differ significantly across the four sub-regions. But there are some consistent sub-sectors including Water Treatment and Distribution, Water Treatment and Distribution Engineering, Agricultural Land, and Green Linkages, they are represented in most of London's Sub-regions and are consistent with London's top sub-sectors.

3.5.3 London Sub-regions' Green & Blue Infrastructure Exports

This section of the report addresses London sub-regions' Green & Blue Infrastructure Exports over the past two years and then identifies leading Green & Blue Infrastructure export products and services.

Figure 3.29: London Sub-regions' Exports (£m) 2022/23 to 2024/25



Figure 3.29 shows the value of Central London Forward Exports was £51m in 2024/25, up from £47m in 2022/23. They grew 3.0% from 2022/23 to 2023/24 and 3.5% from 2023/24 to 2024/25.

The value of Local London Exports was £22m in 2024/25, up from £20m in 2022/23. They grew 2.9% from 2022/23 to 2023/24 and 3.3% from 2023/24 to 2024/25.

The value of South London Partnership Exports was £12m in 2024/25, up from £11m in 2022/23. They grew 2.7% from 2022/23 to 2023/24 and 3.5% from 2023/24 to 2024/25.

The value of West London Alliance Exports was £9m in 2024/25, up from £8.5m in 2022/23. They grew 2.4% from 2022/23 to 2023/24 and 4.6% from 2023/24 to 2024/25.

This is compared to London growth of 3.0% and 3.3%, respectively.

Figure 3.30: London Sub-regions' Exports (%) by Sub-Sector 2024/25



Figure 3.30 illustrates the proportion of Green & Blue Infrastructure exports varies significantly by sub-regions, in line with sales.

The top two export sub-sectors in Central London Forward are: Water Treatment and Distribution 71%; and Water Treatment & Distribution Engineering 19%, accounting for 90% of exports.

The top two export sub-sectors in Local London are: Water Treatment and Distribution 71%; and Water Treatment & Distribution Engineering 24%, accounting for 95% of exports.

The top two export sub-sectors in South London Partnership are: Water Treatment and Distribution 72%; and Water Treatment & Distribution Engineering 24%, accounting for 96% of exports..

The top two export sub-sectors in West London Alliance are: Water Treatment and Distribution 66%; and Water Treatment & Distribution Engineering 23%, accounting for 89% of exports.

3.5.4 London Sub-regions Green & Blue Infrastructure Timeseries

Figure 3.31 G&BI London Sub-regions – Total Sales (£m)

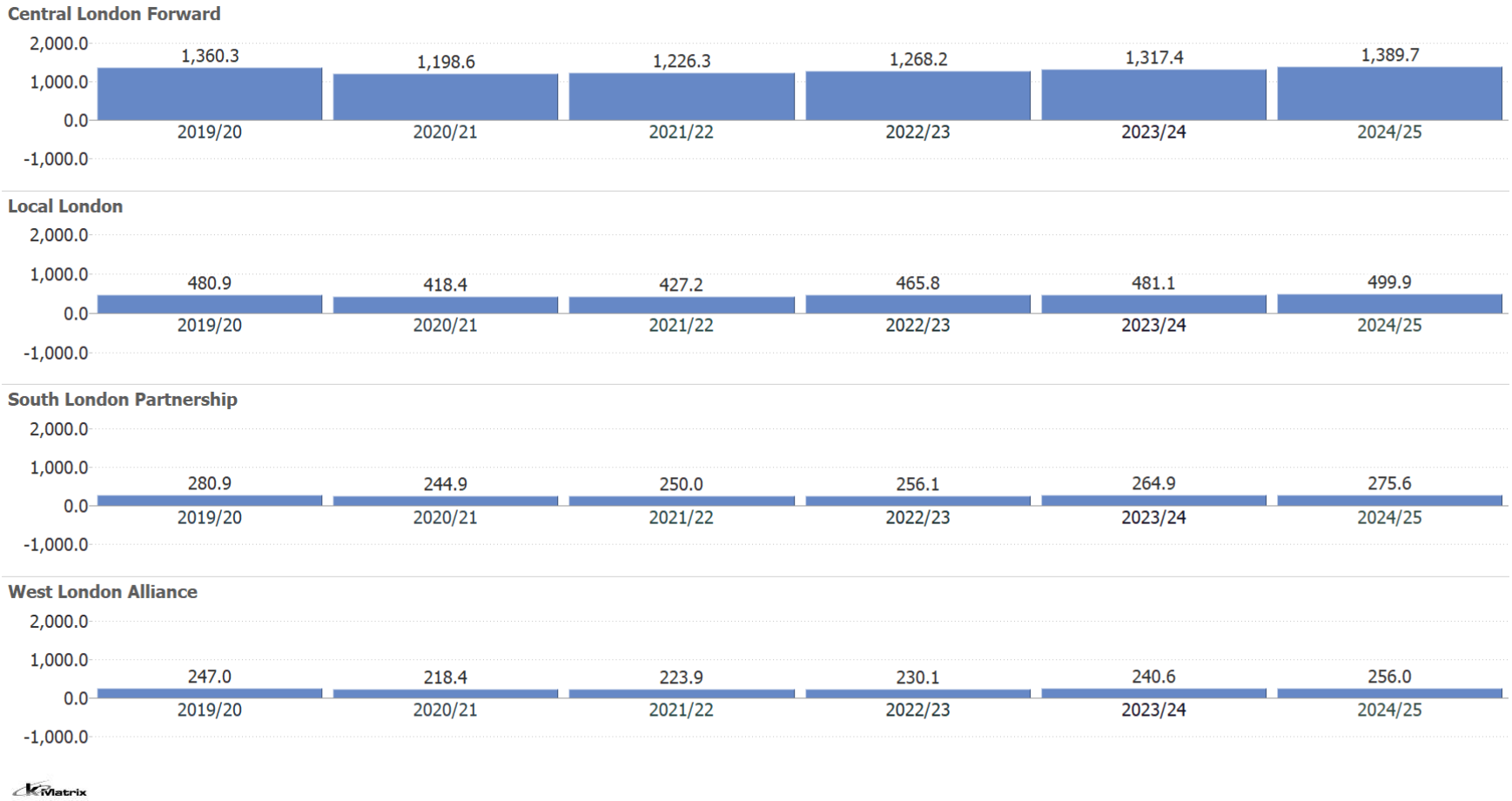


Figure 3.31 illustrates the annual sales for the Green & Blue Infrastructure sector in the four London Sub-regions. Central London Forward grew 2%, Local London grew by 4%, South London Partnership contracted by -2% and West London Alliance by 4% between 2019/20 and 2024/25. This compares with London growth of 2% and UK growth of 3% between 2019/20 and 2024/25.

Figure 3.32: G&BI London Sub-regions – Total Number of Companies

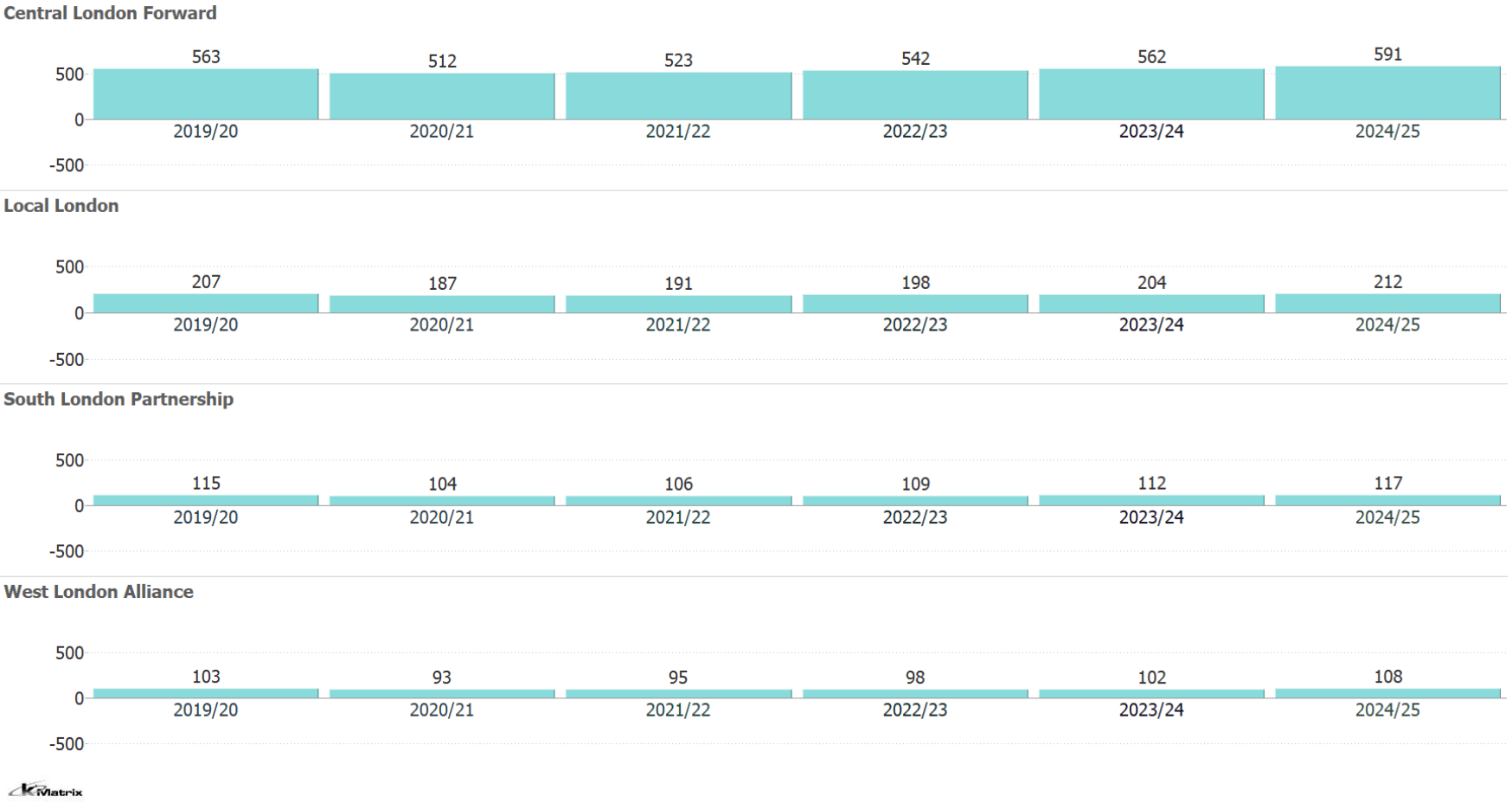


Figure 3.32 illustrates the annual number of companies for the Green & Blue Infrastructure sector in the four London Sub-regions. Central London Forward grew 5%, Local London grew by 2%, South London Partnership by 1% and West London Alliance by 5% between 2019/20 and 2024/25. This compares with London growth of 4% and UK growth of 4% 2019/20 and 2024/25.

Figure 3.33: G&BI London Sub-regions – Total Number of Employees

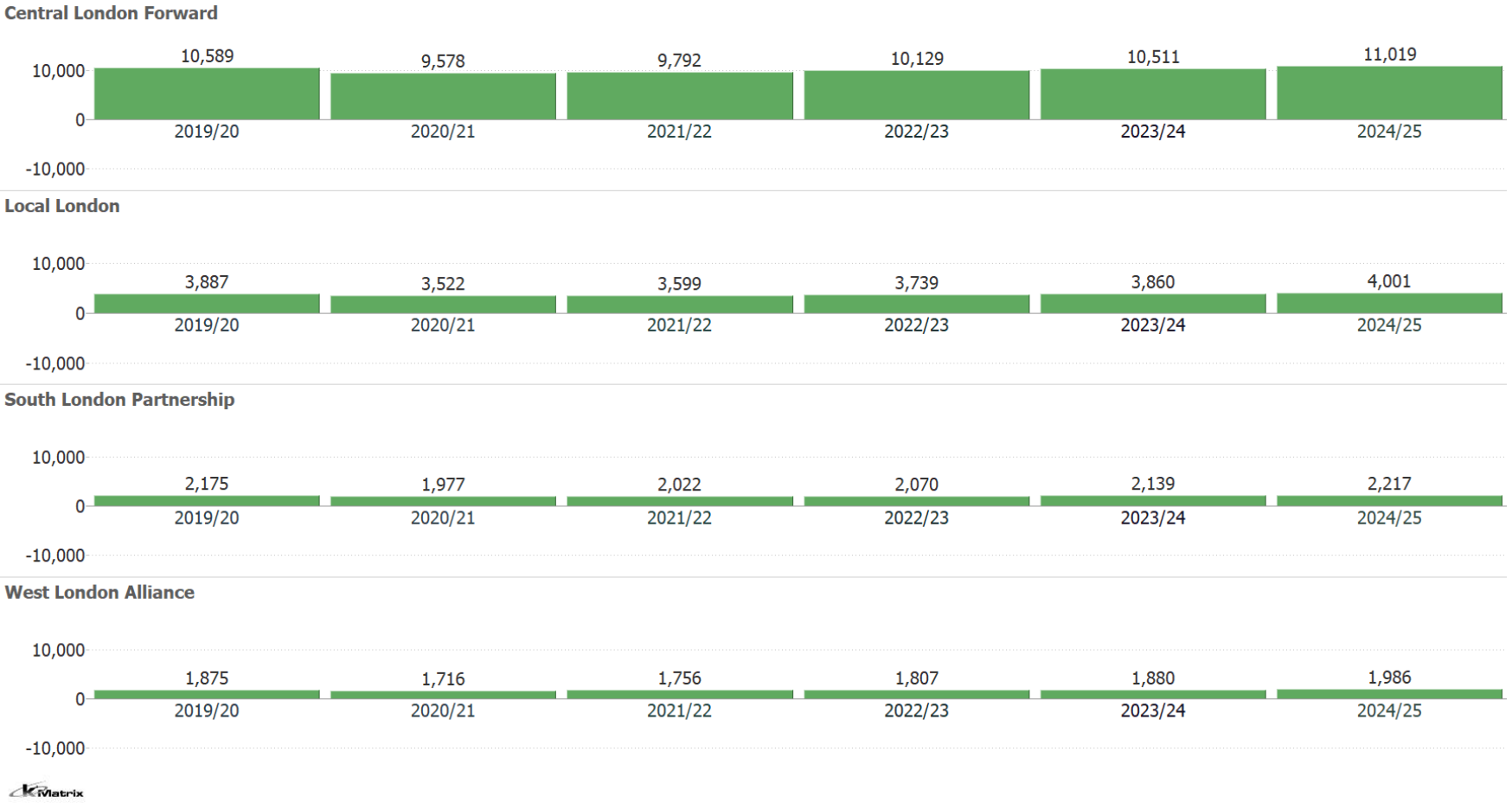


Figure 3.33 illustrates the annual number of employment for the Green & Blue Infrastructure sector in the four London Sub-regions. Central London Forward grew 4%, Local London grew by 3%, South London Partnership by 2% and West London Alliance by 6% between 2019/20 and 2024/25. This compares with London growth of 4% and UK growth of 4% 2019/20 and 2024/25.

4. London's Climate Adaptation Sector Analysis

4.1 London and the UK's Climate Adaptation Timeseries

Figure 4.1: Climate Adaptation London – Total Sales (£m)

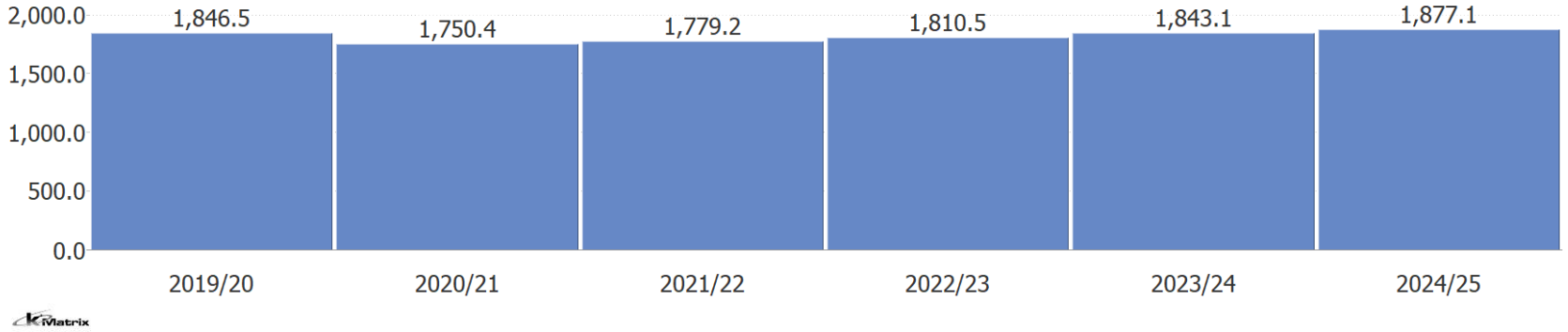
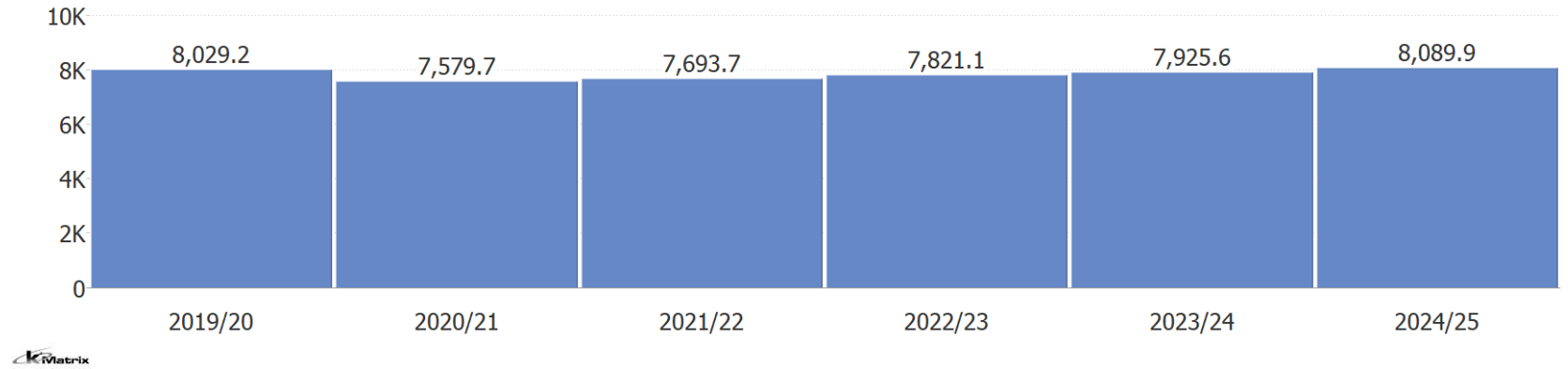


Figure 4.2: Climate Adaptation UK – Total Sales (£m)



Figures 4.1 and 4.2 illustrate the market contraction of sales for the Climate Adaptation sector in both the UK and London between 2019/20 and 2020/21, the London market contracted -5% and the UK market by -6% between 2019/20 and 2020/21 when the pandemic was at its peak. The London market grew by 4% and the UK by 3% between 2022/23 and 2024/25. Overall, the London market has grown 2%, and the UK market has grown 1% between 2019/20 and 2024/25.

Figure 4.3: Climate Adaptation London – Total Number of Companies

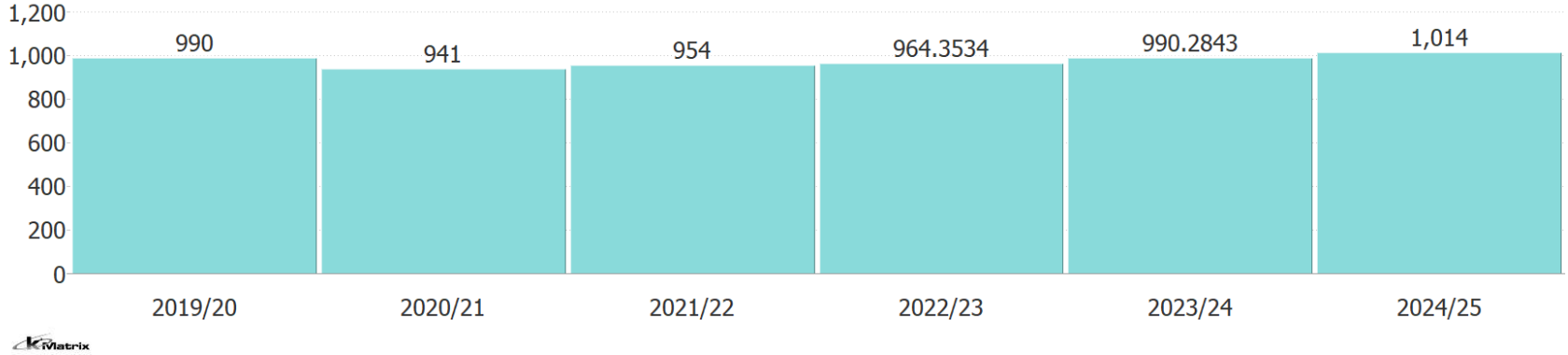
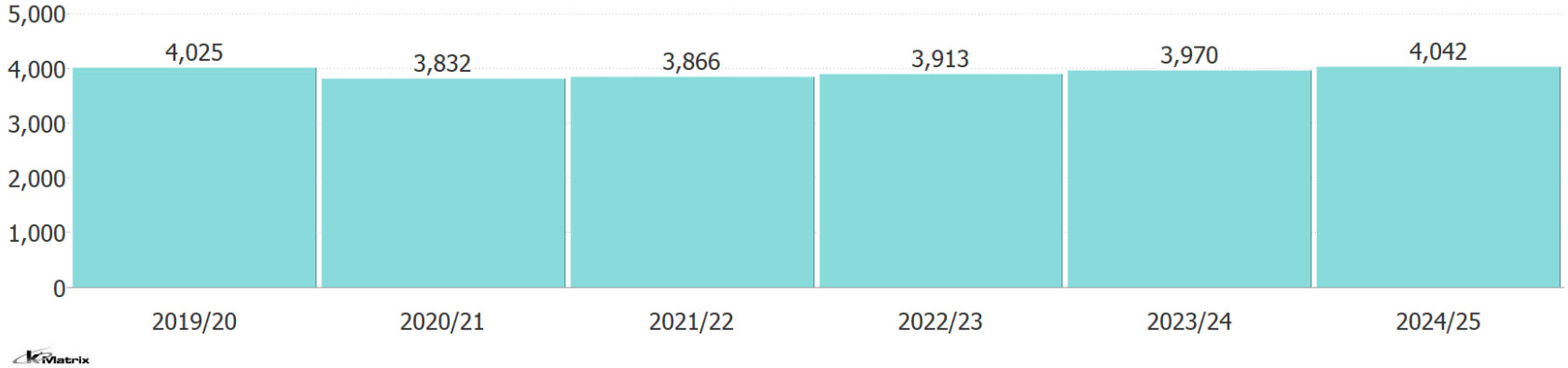


Figure 4.4: Climate Adaptation UK – Total Number of Companies



Figures 4.3 and 4.4 illustrate during the peak of the pandemic in the year between 2019/20 and 2020/21 the number of companies in the London market contracted by -5% and the UK market by -5%. The London company base grew by 5% and the UK by 3% between 2022/23 and 2024/25. Overall, the London company base has grown 2.5%, and the UK has grown 0.4% between 2019/20 and 2024/25.

Figure 4.5: Climate Adaptation London – Total Number of Employees

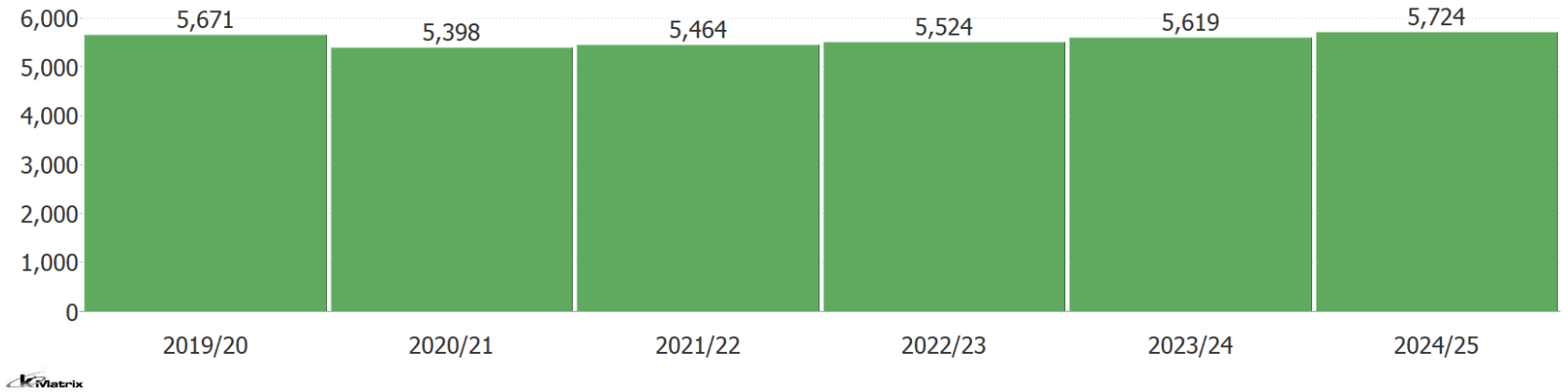
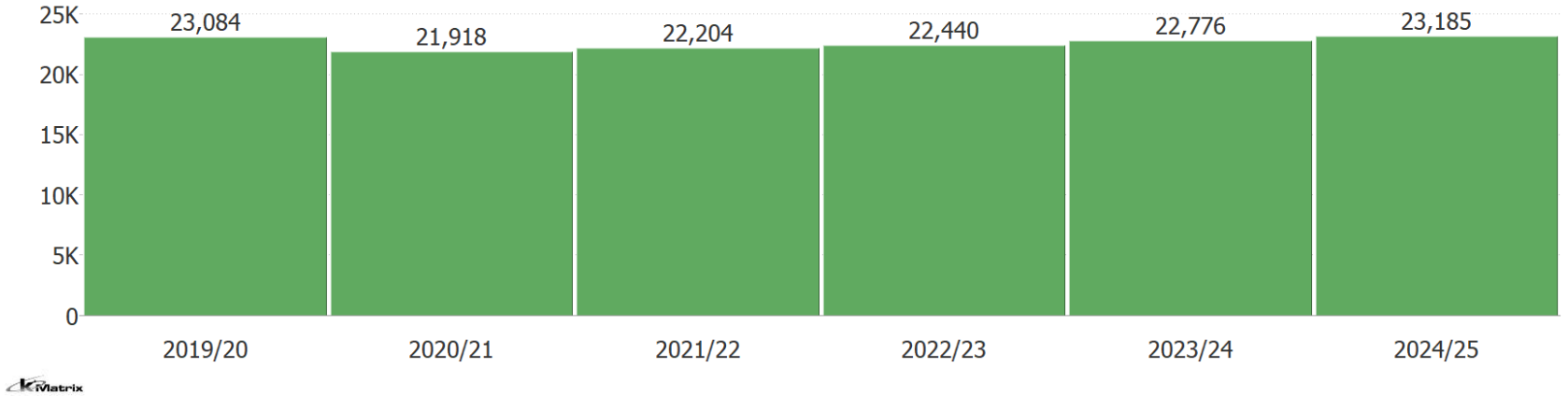


Figure 4.6: Climate Adaptation UK – Total Number of Employees



Figures 4.5 and 4.6 illustrate the annual number of employees within the Climate Adaptation sector for both the UK and London. During the peak of the pandemic in the year between 2019/20 and 2020/21, the number of employees in the London market contracted by -5% and the UK market by -5%. London employment grew by 4% and the UK by 3% between 2022/23 and 2024/25. Overall, the London employee base has grown 0.9%, and the UK by 0.4% between 2019/20 and 2024/25.

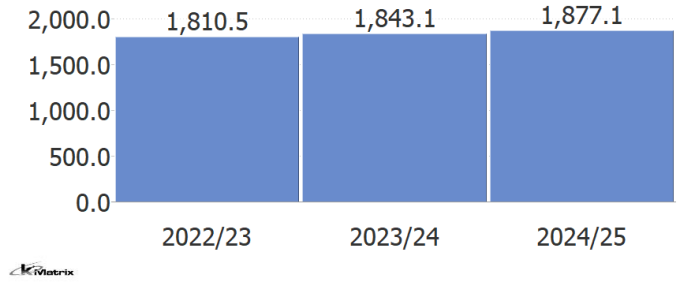
4. 2 London's Climate Adaptation Market Analysis

This section of the report analyses London's Climate Adaptation Market (Level 1 for this dataset) and Level 2.

4.2.1 Climate Adaptation Compared by Year

In this section of the report London's Climate Adaptation performance is compared for the last three years for the three key measures of Sales, Employment and Growth.

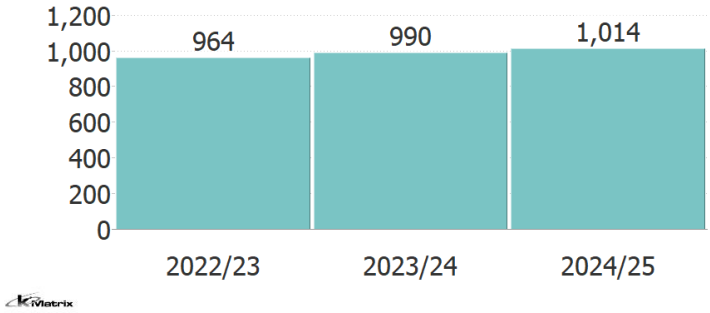
Figure 4.7: Sales 2022/23 to 2024/25 in £m



London's Climate Adaptation sales in 2024/25 were £1.9bn, up from £1.8bn in 2022/23.

Annual sales growth in London's Climate Adaptation sector was 1.8% from 2022/23 to 2023/24, and 1.8% from 2023/24 to 2024/25. In comparison UK sales growth in Climate Adaptation was 1.3% and 2.1%, respectively.

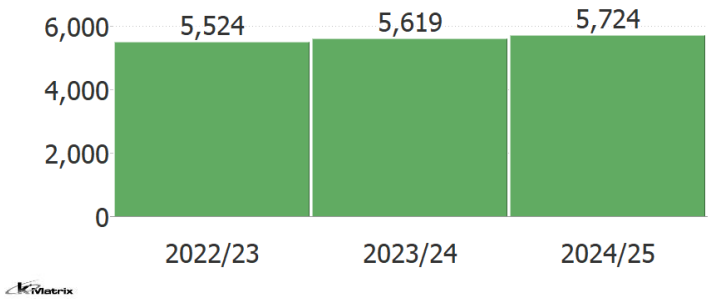
Figure 4.8: Companies 2022/23 to 2024/25



London's Climate Adaptation company count in 2024/25 was 1,014, up from 964 in 2022/23.

Annual company growth in London's Climate Adaptation sector was 2.7% from 2022/23 to 2023/24, and 2.4% from 2023/24 to 2024/25. In comparison UK company growth in Climate Adaptation was 1.5%, and 1.8%, respectively.

Figure 4.9: Employment 2022/23 to 2024/25



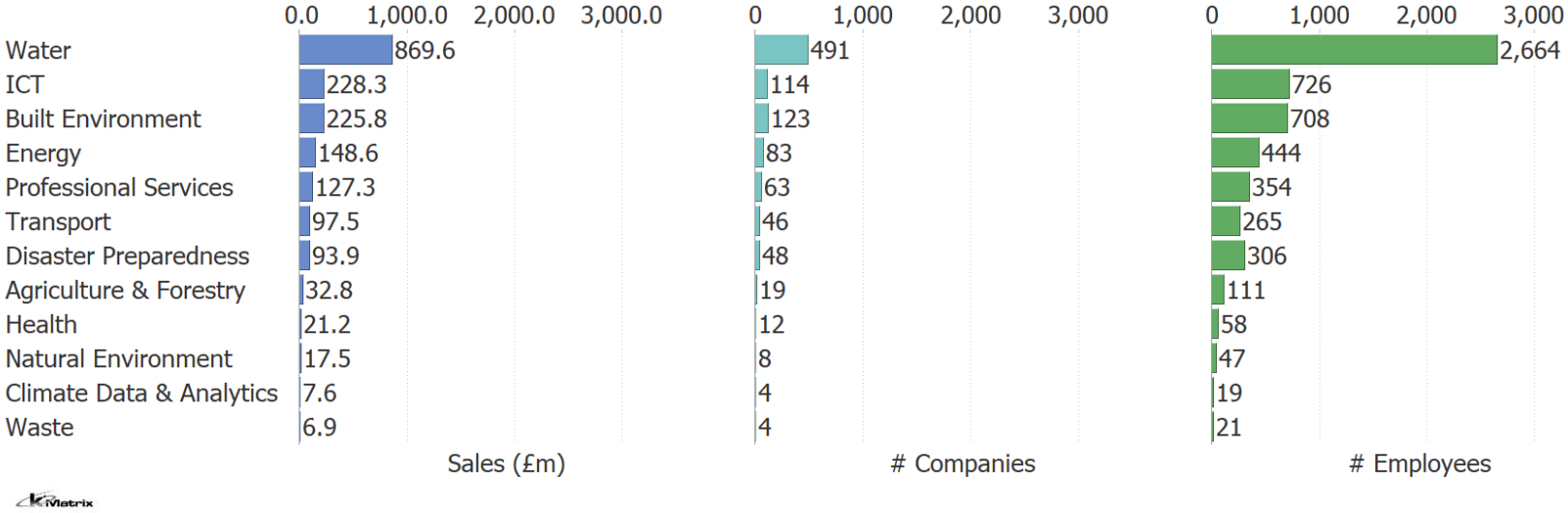
London's Climate Adaptation employment in 2024/25 was 5,724, up from 5,524 in 2022/23.

Annual employment growth in London's Climate Adaptation was 1.7% from 2022/23 to 2023/24, and 1.9% from 2023/24 to 2024/25. In comparison UK employment growth in Climate Adaptation was 1.5% and 1.8% respectively.

4.2.2 Climate Adaptation at Level 2

The analysis in this section of the report focuses on the Level 2 split of Climate Adaptation in London for each of the last three years.

Figure 4.10: Sales, Companies and Employees 2024/25 in £m (Level 2)



The Climate Adaptation sector is split into twelve Level 2 sub-sectors, of which three account for 71% of sales, 72% of Companies and 72% of Employees (Figure 4.10). These three are made up of Water 46% of sales (46% in 2022/23), ICT 12% (12% in 2022/23) and Built Environment 12% (12% in 2022/23).

Table 4.1: London and UK Total GDP Compared to Climate Adaptation Level 2 Sales 2023/24 – sorted by size of London's Sub-sectors

Level 2 Sub-sector	London's Climate Adaptation Sales 2023/24	Climate Adaptation as a % of London's Total GDP	Sub-sector Proportion	UK Climate Adaptation Sales 2023/24	Climate Adaptation as a % of UK's Total GDP	Sub-sector Proportion
Water	852.1	0.14%	46.2%	3,615.5	0.13%	45.6%
ICT	224.6	0.04%	12.2%	1,064.6	0.04%	13.4%
Built Environment	222.6	0.04%	12.1%	971.1	0.04%	12.3%
Energy	145.7	0.02%	7.9%	633.6	0.02%	8.0%
Professional Services	125.0	0.02%	6.8%	464.2	0.02%	5.9%
Transport	96.0	0.02%	5.2%	438.1	0.02%	5.5%
Disaster Preparedness	92.6	0.01%	5.0%	369.9	0.01%	4.7%
Agriculture & Forestry	32.0	0.01%	1.7%	160.6	0.01%	2.0%
Health	20.9	0.00%	1.1%	78.4	0.00%	1.0%
Natural Environment	17.3	0.00%	0.9%	68.2	0.00%	0.9%
Climate Data & Analytics	7.5	0.00%	0.4%	31.5	0.00%	0.4%
Waste	6.8	0.00%	0.4%	30.0	0.00%	0.4%
Total	**1,843.1**	**0.30%**	**100.0%**	**7,925.6**	**0.29%**	**100.0%**

London's 2023/24 Total Gross Domestic Product was £617,916m and the UK's Total Gross Domestic Product was £2,689,853m. London's total GPD and UK's Total GDP values are from the ONS[10] and 2023/24 sector data was used due to lag in data from the ONS.

Sales have been compared with GDP to give an indication of the scale and significance of the sector relative to the whole local economy. Table 4.1 shows that in 2023/24 London's Climate Adaptation sector contributed a similar proportion of GDP to the national average, with 0.30% for London compared with 0.29% for the UK.

[10] https://www.ons.gov.uk/economy/grossdomesticproductgdp/datasets/regionalgrossdomesticproductlocalauthorities

Within London's twelve Level 2 sub-sectors, all contributed a similar proportion to GDP to the national average.

Table 4.2: London and UK Business Base Compared to Climate Adaptation Level 2 Companies 2024/25

Level 2 Sub-sector	London's Climate Adaptation Companies 2024/25	Climate Adaptation as a % of London's Total Companies	Sub-sector Proportion	UK Climate Adaptation Companies 2024/25	Climate Adaptation as a % of UK Total Companies	Sub-sector Proportion
Water	491	0.09%	48.4%	1,882	0.07%	46.6%
Built Environment	123	0.02%	12.2%	491	0.02%	12.1%
ICT	114	0.02%	11.2%	486	0.02%	12.0%
Energy	83	0.02%	8.2%	321	0.01%	7.9%
Professional Services	63	0.01%	6.2%	252	0.01%	6.2%
Disaster Preparedness	48	0.01%	4.7%	238	0.01%	5.9%
Transport	46	0.01%	4.5%	196	0.01%	4.9%
Agriculture & Forestry	19	0.00%	1.9%	63	0.00%	1.6%
Health	12	0.00%	1.2%	50	0.00%	1.2%
Natural Environment	8	0.00%	0.8%	34	0.00%	0.9%
Waste	4	0.00%	0.4%	15	0.00%	0.4%
Climate Data & Analytics	4	0.00%	0.4%	14	0.00%	0.4%
Total	**1,014**	**0.19%**	**100.0%**	**4,042**	**0.15%**	**100.0%**

The total number of enterprises in London in 2024 was 530,815 and the total number of enterprises in the UK in 2024 was 2,645,840. London's economically active people and UK's economically active people values are from Nomis[11].

Table 4.2 shows that in 2024/25 London's Climate Adaptation sector Companies contributed a slightly larger proportion to the number of Total Enterprises to the national average, with 0.19% for London compared with 0.15% for the UK.

[11] https://www.nomisweb.co.uk/reports/lmp/gor/2013265927/subreports/nrhi_time_series/report.aspx?

Within London's twelve Level 2 sub-sectors, all contributed a similar proportion of Companies to the national average, with Water being very slightly higher with 0.09% compared with 0.07% for the UK.

Table 4.3 London and UK Economically Active People Compared to Climate Adaptation Level 2 Employment 2024/25

Level 2 Sub-sector	London's Climate Adaptation Employees 2024/25	Climate Adaptation as a % of London's Total Economically Active People	Sub-sector Proportion	UK Climate Adaptation Employees 2024/25	Climate Adaptation as a % of UK Total Economically Active People	Sub-sector Proportion
Water	2,664	0.05%	46.5%	9,822	0.03%	42.4%
ICT	726	0.01%	12.7%	3,222	0.01%	13.9%
Built Environment	708	0.01%	12.4%	3,204	0.01%	13.8%
Energy	444	0.01%	7.8%	1,973	0.01%	8.5%
Professional Services	354	0.01%	6.2%	1,425	0.00%	6.1%
Disaster Preparedness	306	0.01%	5.3%	1,296	0.00%	5.6%
Transport	265	0.01%	4.6%	1,223	0.00%	5.3%
Agriculture & Forestry	111	0.00%	1.9%	423	0.00%	1.8%
Health	58	0.00%	1.0%	250	0.00%	1.1%
Natural Environment	47	0.00%	0.8%	172	0.00%	0.7%
Waste	21	0.00%	0.4%	99	0.00%	0.4%
Climate Data & Analytics	19	0.00%	0.3%	78	0.00%	0.3%
Total	**5,724**	**0.11%**	**100.0%**	**23,185**	**0.07%**	**100.0%**

The total number of economically active people in London in 2024 was 5,019,000 and the total number of economically active people in the UK in 2024 was 34,872,000. London's economically active people and UK's economically active people values are from Nomis[12].

[12] https://www.nomisweb.co.uk/reports/lmp/gor/2013265927/subreports/nrhi_time_series/report.aspx?

Table 4.3 shows that in 2024/25 London's Climate Adaptation sector Employees contributed a slightly larger proportion to the number of Economically Active People than the national average, with 0.11% for London compared with 0.07% for the UK.

Within London's twelve Level 2 sub-sectors, all contributed a similar proportion of Employees to the national average, with Water being very slightly higher with 0.05% compared with 0.03% for the UK.

4.2.3 Climate Adaptation Level 3 Sub-sectors

In this section we look at the largest Climate Adaptation Level 2 sub-sectors split into their Level 3 sub-sectors. The eight climate Adaptation Level 2 sub-sectors are split into forty-eight Level 3 sub-sectors and the values in the majority of these sub-sectors are very small, as such, only the largest three are discussed in this section, they are Water, ICT and Built Environment. Appendix 1 includes definitions for sub-sectors within each section.

Figure 4.11: Sales in £m, Companies and Employees 2024/25 (Level 3)



Water is further sub-divided into four sub-sectors, of which two account for 89% of sales (89% in 2022/23), 89% of companies (89% in 2022/23), and 88% of employees (88% in 2022/23), (Figure 4.11). These are Sustainable Drainage and Water Management 76% (76% in 2022/23), and Water Infrastructure 13% (13% in 2022/23).

Both of these sub-sectors grew between 2022/23 and 2024/25: Sustainable Drainage and Water Management sales from £635m to £660m; companies from 352 to 372; and employees from 1,895 to 1,964; and Water Infrastructure sales from £111m to £115m; companies from 63 to 66; and employees from 368 to 383.

ICT is further sub-divided into nine sub-sectors, of which three account for 74% of sales (74% in 2022/23), 73% of companies (73% in 2022/23), and 76% of employees (76% in 2022/23). These are Control Systems 45% (45% in 2022/23), Transaction Management 15% (15% in 2022/23), and ICT Installations 13% (13% in 2022/23).

All three of these sub-sectors grew between 2022/23 and 2024/25: Control Systems sales from £100m to £104m; companies from 49 to 51; and employees from 348 to 359; Transaction Management sales from £34m to £35m; companies from 18 to 19; and employees from 97 to 100; and ICT Installations sales from £30m to £31m; companies from 13 to 14; and employees from 86 to 89.

Built Environment is further sub-divided into four sub-sectors, of which two account for 94% of sales (94% in 2022/23), 94% of companies (94% in 2022/23), and 95% of employees (95% in 2022/23). These are Construction & Retrofit 60% (60% in 2022/23), and Energy Efficiency 35% (35% in 2022/23).

Both of these sub-sectors grew between 2022/23 and 2024/25: Construction & Retrofit sales from £131m to £135m; companies from 68 to 72; and employees from 416 to 427; and Energy Efficiency sales from £76m to £78m; companies from 42 to 44; and employees from 235 to 244.

4.2.4 London's Climate Adaptation Historic Growth

In Section 4.1 annual growth in London's Climate Adaptation sales, employment and companies was compared with growth in the UK's Climate Adaptation sector as a whole for 2022/23 to 2024/25. This section includes summaries of how sub-sector growth in London compares with the UK. A detailed table of Lonon's annual growth by sub-sector is in available in the Companion Dataset.

While annual growth in the Climate Adaptation sector as a whole has varied between 1.7% and 2.7% for each of the three parameters, there is considerable variation in growth between the Level 2 sub-sectors. This reflects London's strengths and its share of these sub-sector markets, all of which are growing at different rates.

The higher growth rates for sub-sectors in London are a reflection of higher growth rates in the UK market and the opportunities that are being created by drivers of growth including policy, regulation and consumer choices. Most sub-sectors in London have growth rates within half a percentage point of the UK growth rates, the five main exceptions of large sub-sectors where London sales growth was stronger than the UK for at least one year are shown in Table 4.4 and are:

- Agriculture & Forestry, where the London sales growth rates were 2.2% between 2022/23 and 2023/24 and 2.2% between 2023/24 and 2024/25 and the UK growth rates were 0.8% between 2022/23 and 2023/24 and 2.3% between 2023/24 and 2024/25

- Disaster Preparedness, where the London sales growth rates were 1.9% between 2022/23 and 2023/24 and 1.5% between 2023/24 and 2024/25 and the UK growth rates were 0.4% between 2022/23 and 2023/24 and 2.6% between 2023/24 and 2024/25
- Health, where the London sales growth rates were 1.9% between 2022/23 and 2023/24 and 1.7% between 2023/24 and 2024/25 and the UK growth rates were 0.9% between 2022/23 and 2023/24 and 0.3% between 2023/24 and 2024/25
- Professional Services, where the London sales growth rates were 1.9% between 2022/23 and 2023/24 and 1.9% between 2023/24 and 2024/25 and the UK growth rates were 1.3% between 2022/23 and 2023/24 and 2.4% between 2023/24 and 2024/25
- Water, where the London sales growth rates were 1.8% between 2022/23 and 2023/24 and 2.1% between 2023/24 and 2024/25 and the UK growth rates were 1.3% between 2022/23 and 2023/24 and 2.2% between 2023/24 and 2024/25

Table 4.4: Sub-sectors where London's Climate Adaptation Sales growth was stronger than the UK for at least one year between 2022/23 to 2024/25

Level 3 sub-sector	London Sales Growth 2022/23 to 2023/24	UK Sales Growth 2022/23 to 2023/24	London Sales Growth 2023/24 to 2024/25	UK Sales Growth 2023/24 to 2024/25
Agriculture & Forestry	2.2%	0.8%	2.2%	2.3%
Disaster Preparedness	1.9%	0.4%	1.5%	2.6%
Health	1.9%	0.9%	1.7%	0.3%
Professional Services	1.9%	1.3%	1.9%	2.4%
Water	1.8%	1.3%	2.1%	2.2%

The four main exceptions where London growth was weaker than the UK for at least one year are shown in Table 4.5 and are:

- Climate Data & Analytics, where the London sales growth rates were 1.3% between 2022/23 and 2023/24 and 1.4% between 2023/24 and 2024/25 and the UK growth rates were 2.0% between 2022/23 and 2023/24 and 2.2% between 2023/24 and 2024/25
- Disaster Preparedness, where the London sales growth rates were 1.9% between 2022/23 and 2023/24 and 1.5% between 2023/24 and 2024/25 and the UK growth rates were 0.4% between 2022/23 and 2023/24 and 2.6% between 2023/24 and 2024/25

- Professional Services, where the London sales growth rates were 1.9% between 2022/23 and 2023/24 and 1.9% between 2023/24 and 2024/25 and the UK growth rates were 1.3% between 2022/23 and 2023/24 and 2.4% between 2023/24 and 2024/25
- Waste, where the London sales growth rates were 1.3% between 2022/23 and 2023/24 and 1.9% between 2023/24 and 2024/25 and the UK growth rates were 1.1% between 2022/23 and 2023/24 and 2.4% between 2023/24 and 2024/25

Table 4.5: Sub-sectors where London's Climate Adaptation Sales growth was weaker than the UK for at least one year between 2022/23 to 2024/25

Level 2 sub-sector	London Sales Growth 2022/23 to 2023/24	UK Sales Growth 2022/23 to 2023/24	London Sales Growth 2023/24 to 2024/25	UK Sales Growth 2023/24 to 2024/25
Climate Data & Analytics	1.3%	2.0%	1.4%	2.2%
Disaster Preparedness	1.9%	0.4%	1.5%	2.6%
Professional Services	1.9%	1.3%	1.9%	2.4%
Waste	1.3%	1.1%	1.9%	2.4%

Growth in London sub-sectors across the 3-year reporting period is generally within one percentage point of UK growth. The two exceptions of sub-sectors where London growth is more than one percentage point stronger are shown in Table 4.6 and are:

- Agriculture & Forestry, where the London sales growth rate was 4.4% between 2022/23 and 2024/25 and the UK growth rate was 3.2% between 2022/23 and 2024/25
- Health, where the London sales growth rate was 3.7% between 2022/23 and 2024/25 and the UK growth rate was 1.2% between 2022/23 and 2024/25

Table 4.6: Sub-sectors where London's Climate Adaptation average Sales growth across the 3-year reporting period was stronger than the UK between 2022/23 to 2024/25

Level 2 sub-sector	London Sales Growth 2022/23 to 2024/25	UK Sales Growth 2022/23 to 2024/25
Agriculture & Forestry	4.4%	3.2%
Health	3.7%	1.2%

The one exception where London growth is more than one percentage point weaker than the UK are shown in Table 4.7 and is:

- Climate Data & Analytics, where the London sales growth rate was 2.7% between 2022/23 and 2024/25 and the UK growth rate was 4.3% between 2022/23 and 2024/25

Table 4.7: Sub-sectors where London's Climate Adaptation average Sales growth across the 3-year reporting period was weaker than the UK between 2022/23 to 2024/25

Level 2 sub-sector	London Sales Growth 2022/23 to 2024/25	UK Sales Growth 2022/23 to 2024/25
Climate Data & Analytics	2.7%	4.3%

The highest levels of actual growth in London Climate Adaptation occurred in Green Roofing (Climate-resilient Infrastructure); Green Walls (Climate-resilient Infrastructure); DHNW Operation (District Heat Networks); DHNW Energy Centres (District Heat Networks); Carbon Finance (Climate Data, Analytics & Fintech); DHNW Construction & Maintenance (District Heat Networks); Alternative Fuel Vehicle (Sustainable Mobility & Transport); Wind (Renewable Energy); Air Source Heat Pumps (Renewable Energy); and Solar (Renewable Energy) between 2021/22 and 2023/24.

4.2.5 London's Climate Adaptation Strengths and Weaknesses

By overlaying the sales for each sub-sector as a proportion of the UK market, the impact of stronger or weaker sales growth can be examined more closely. Figure 4.12 below shows how London compares with the UK for the 12 Level 2 sub-sectors, with regards to size of market and growth across three-years 2022/23 to 2024/25.

The x-axis represents the London/UK sales proportionality factor, which was calculated for each sub-sector by dividing the London sales a percentage of the UK, by 23.2%. This proportionality factor demonstrates where London holds a larger or smaller share of the UK market than would be expected, where:

- 1 = 23.2% of the UK market
- >1 = larger than 23.2% share
- <1 = smaller than 23.2% share

The y-axis represents the growth rate of London's Level 2 sub-sectors compared with the UK. This was calculated by dividing the 3-year growth rate of London by the average UK growth rate. This growth rate factor demonstrates which sub-sectors have a stronger or slower growth rate than the UK, where:

- 1 = the UK growth rate
- >1 = stronger than the UK average growth

- <1 = weaker than UK growth

The graph is split into four quadrants along 1 on each axis, with sub-sectors in each demonstrating:

- Top right = larger market share than expected and stronger growth than the UK average
- Bottom Right = larger market share than expected, but weaker growth than the UK average
- Top left = smaller market share than expected, but stronger growth than the UK average
- Bottom left = smaller market share than expected and weaker growth than the UK average

The bubbles represent the 12 Level 2 sub-sectors and are sized by 2023/24 sales £m, illustrating their relative sizes.

Figure 4.12: London/UK Sales proportionality factor vs London/UK Growth factor of Level 2 Sub-sectors, Bubbles Sized by Sales £m

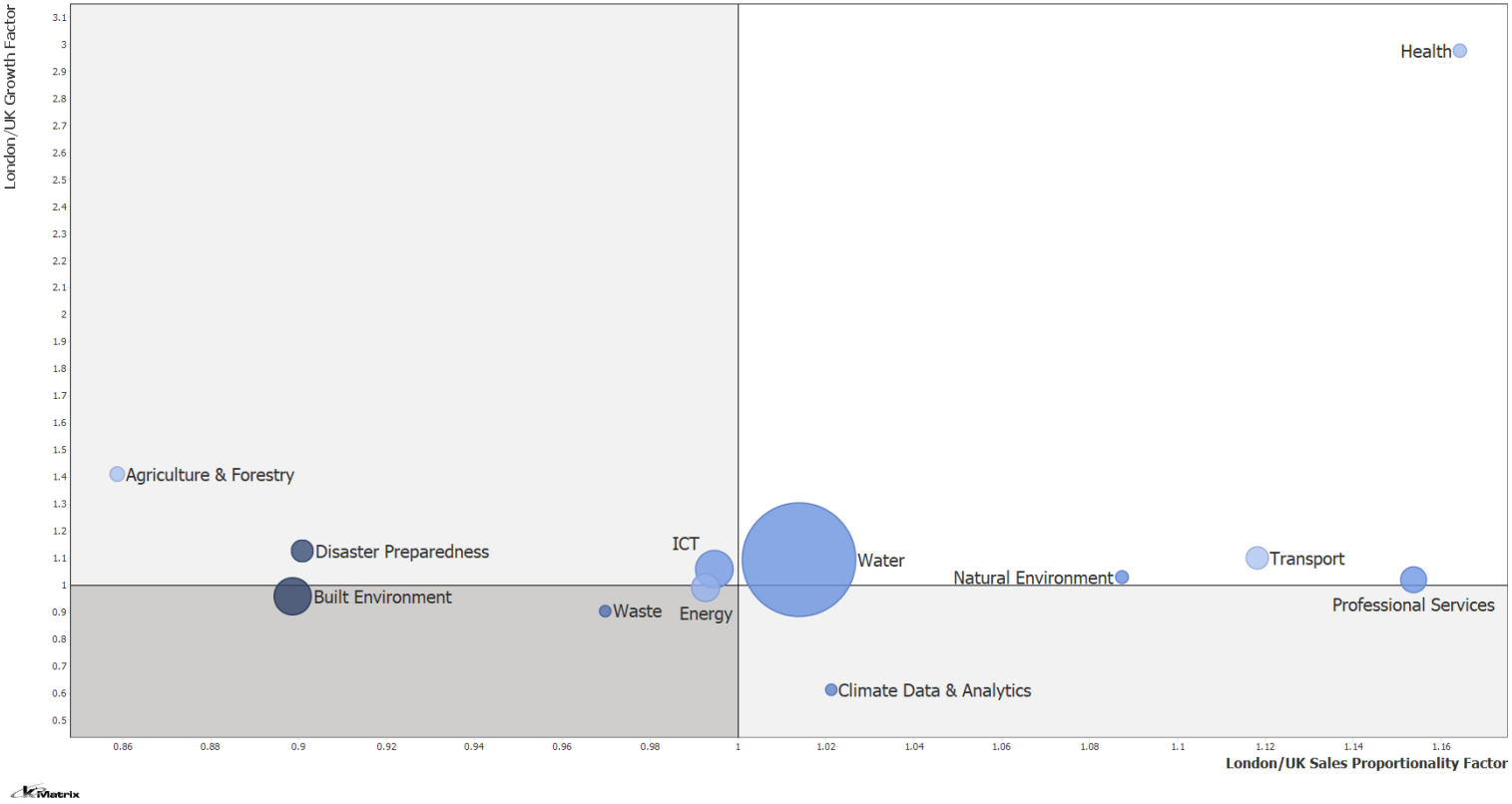


Figure 4.12 clearly illustrates both the larger relative proportion of sales and the strong growth of Health, which grew by 4.4% compared with the UK growth of 3.2%. Water is close to the centre of the quadrants, with similar growth to the UK (London 3.9% vs UK 3.6%), Agriculture & Forestry is smaller than the sector average (unsurprising in such an urban area), but stronger growth than the sector average (4.4% vs. 3.2%); Professional Services has a larger proportion than the sector average (27% vs. sector average of 23%), in line with London's strength in this area in the wider economy.

4.2.6 London's Climate Adaptation Forecast Growth

Table 4.8 shows sales growth forecasts (annual percentage growth from the previous year) for 2025/26 through to 2029/30. The growth rates refer to the growth expected during the financial year listed. Forecast growth for the majority of sub-sectors is generally consistent with levels of historical growth, but as forecasts stretch out beyond 2029/30, they inevitably tend to be less robust. The growth rates would be applied to the year indicated, so for example, the 2025/26 growth rate indicates the expected growth between the 2024/25 and 2025/26 sales figures.

Table 4.8: London's Climate Adaptation Forecast Sales (£m) and Growth 2025/26 to 2029/30

Level 2	Sales £m 2024/25	Forecast growth %	Forecast Sales £m 2025/26	Forecast growth %	Forecast Sales £m 2026/27	Forecast growth %	Forecast Sales £m 2027/28	Forecast growth %	Forecast Sales £m 2028/29	Forecast growth %	Forecast Sales £m 2029/30
Agriculture & Forestry	32.8	4.2%	34.1	5.9%	36.1	8.4%	39.2	11.4%	43.6	16.2%	43.6
Built Environment	225.8	4.5%	236.0	6.2%	250.6	8.6%	272.2	12.0%	304.9	16.5%	304.9
Climate Data & Analytics	7.6	4.6%	8.0	6.8%	8.5	8.5%	9.2	12.1%	10.4	16.9%	10.4
Disaster Preparedness	93.9	4.5%	98.2	6.1%	104.2	8.8%	113.3	12.1%	127.0	16.8%	127.0
Energy	148.6	4.5%	155.3	6.2%	165.0	8.7%	179.3	12.0%	200.8	16.5%	200.8
Health	21.2	4.5%	22.2	6.5%	23.6	8.6%	25.7	12.1%	28.8	16.8%	28.8
ICT	228.3	4.7%	239.0	7.1%	256.0	8.8%	278.5	12.4%	313.0	17.0%	313.0
Natural Environment	17.5	4.2%	18.2	6.2%	19.4	8.5%	21.0	11.9%	23.5	16.7%	23.5
Transport	127.3	4.6%	133.2	6.2%	141.4	8.7%	153.7	12.1%	172.3	17.1%	172.3
Waste	97.5	4.6%	101.9	6.5%	108.6	8.6%	117.9	12.0%	132.1	16.9%	132.1

Water	6.9	4.4%	7.2	6.2%	7.7	8.8%	8.3	12.1%	9.3	17.0%	9.3
Total	**869.6**	**4.6%**	**909.6**	**6.2%**	**966.0**	**8.7**	**1,050.1**	**12.5%**	**1,180.3**	**17.1%**	**1,180.3**

Growth is between one year and the next

Table 4.8 show year-on-year growth is expected for all Level 2 sub-sectors, with sector sales forecast to increase from £870m in 2024/25 to £1.18bn in 2029/30. Figure 4.13 shows the annual forecast growth for London's Climate Adaptation to 2025/26-2029/30 based upon the values in Table 4.8. The growth rates refer to the growth expected during the financial year listed.

Figure 4.13: London's Climate Adaptation Forecast Sales Growth 2024/25-2025/26 to 2028/29-2029/30

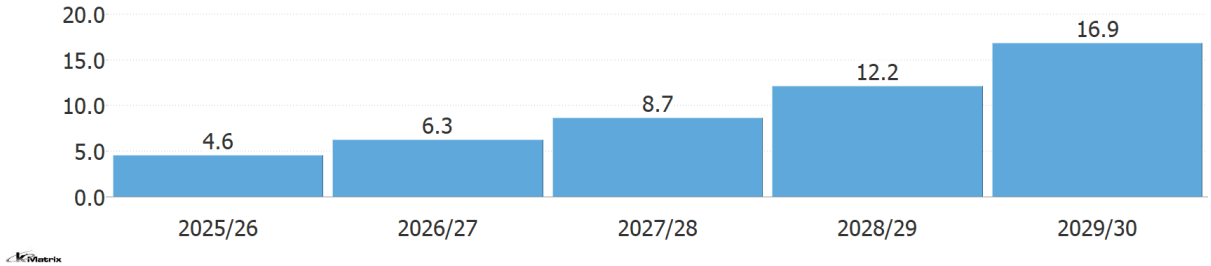


Figure 4.13 shows forecast growth for London's Climate Adaptation market, with consistent year-on-year growth predicted throughout the forecast period.

Figure 4.14: UK's Climate Adaptation Forecast Sales Growth 2024/25-2025/26 to 2028/29-2029/30

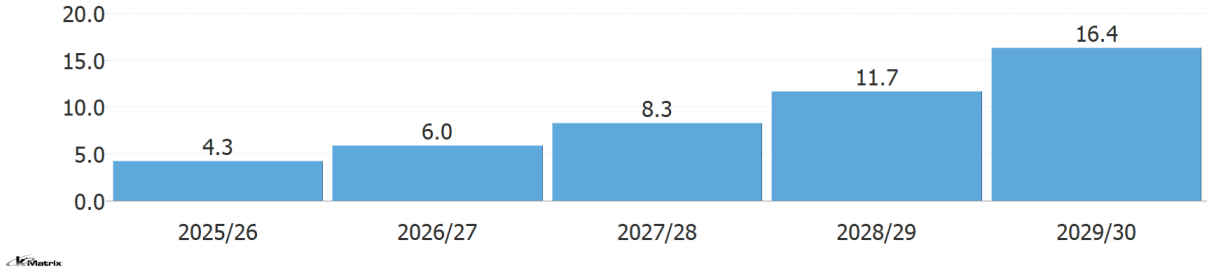


Figure 4.14 shows the annual growth forecast for the UK's Climate Adaptation market from 2025/26-2029/30 and illustrates that the forecast growth for London is expected to be stronger than the UK throughout the forecast period from 2025/26 to 2029/30.

Figure 4.15: London's and UK's Climate Adaptation year-on-year Sales Growth 2019/20-2021/22 to 2023/24-2024/25 and Forecast Sales Growth 2024/25-2025/26 to 2028/29-2029/30

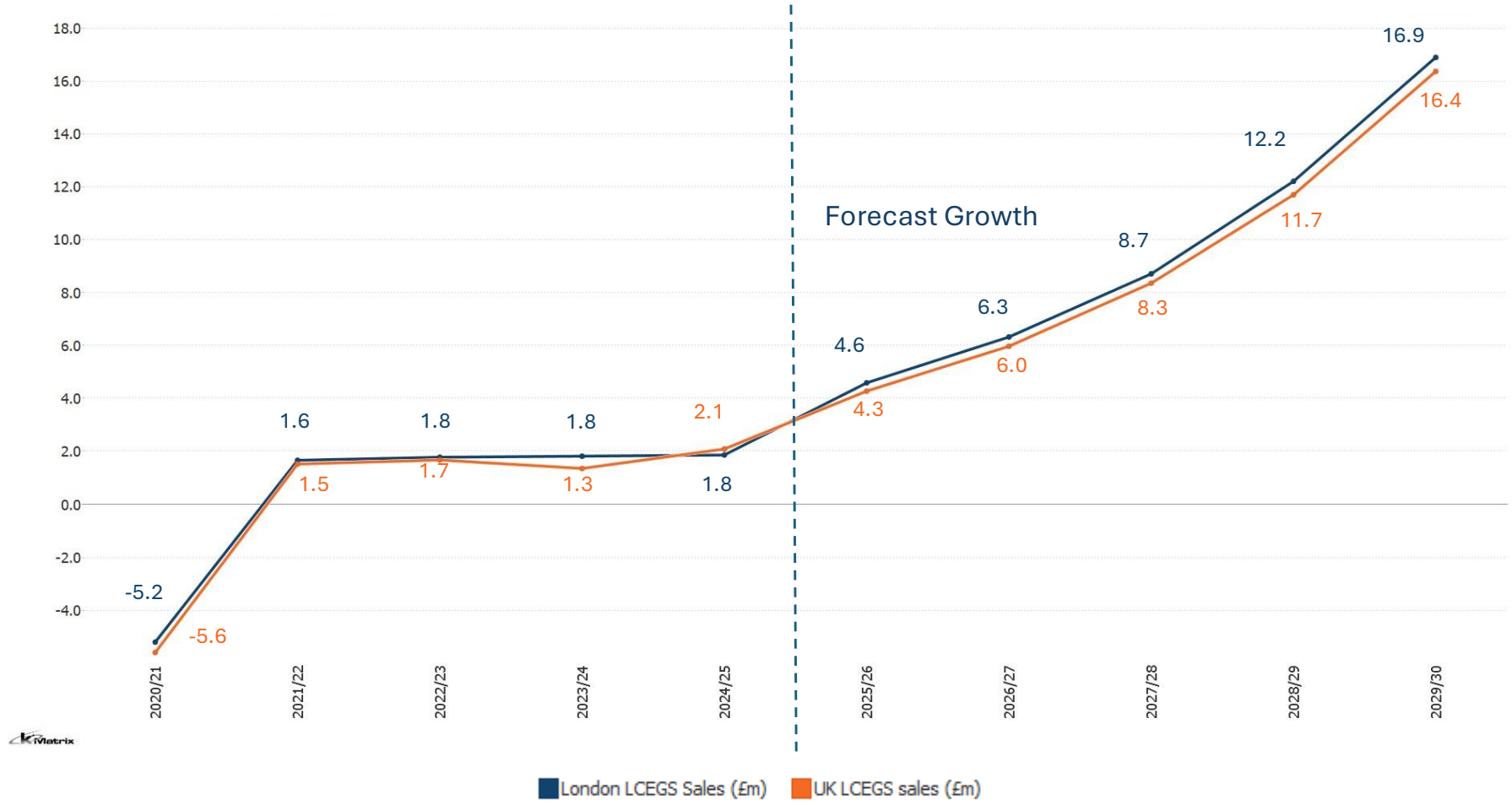
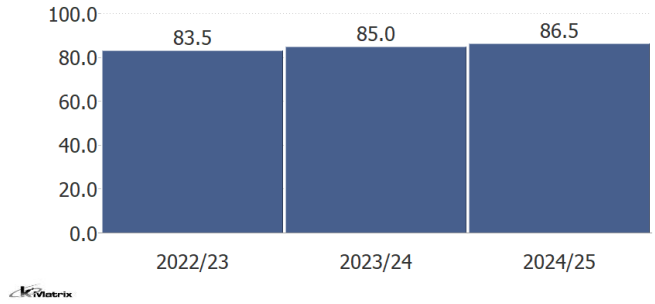


Figure 4.15 shows the timeline for year-on-year growth for the UK and London Sales for Climate Adaptation from 2020/21 to 2023/24-2024/25, combined with forecast growth to 2028/29-2029/30. London had a smaller contraction in 2020/21 than the UK average due to the pandemic and is expected to have stronger growth than the UK average from 2025/26 to 2029/30.

4.2.7 London's Climate Adaptation Exports

This section of the report addresses London's Climate Adaptation Exports over the past two years when compared with UK totals and then identifies leading Climate Adaptation export products and services.

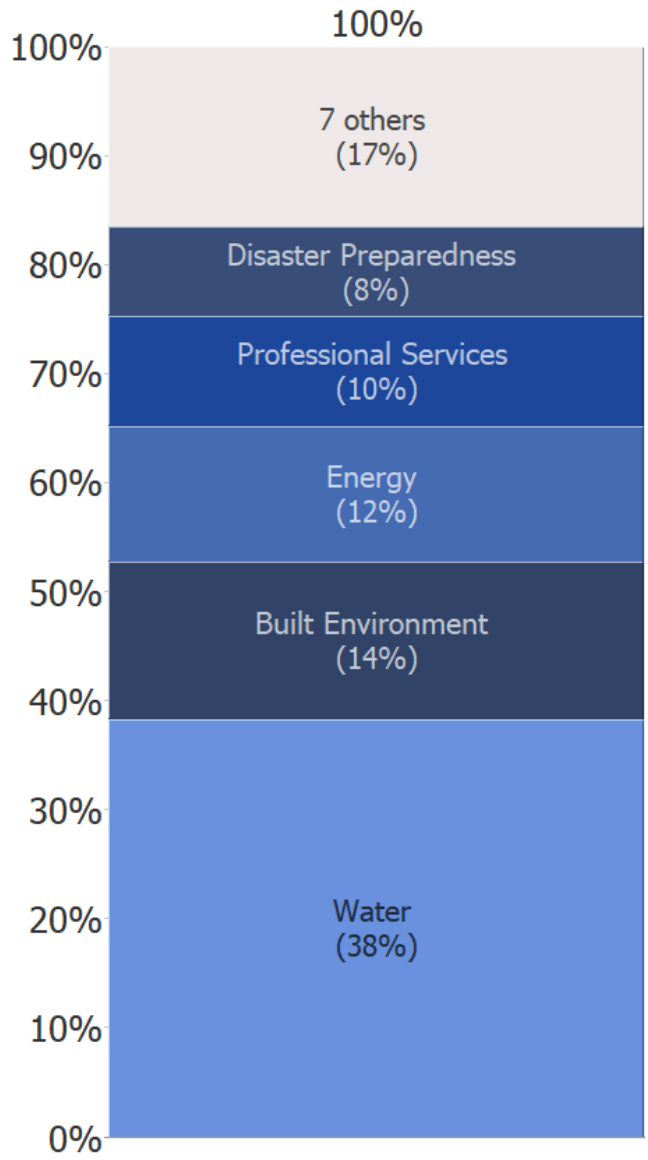
Figure 4.16: London's Climate Adaptation Exports (£m) 2022/23 to 2024/25



The value of London's Climate Adaptation Exports was £87m in 2024/25, up from £84m in 2022/23.

Growth was 1.8% from 2022/23 to 2023/24 and 1.8% from 2023/24 to 2024/25. This is compared to UK growth of approximately 1.5% and 2.0%, respectively.

Figure 4.17: London's Exports (%) by Sub-Sector 2024/25



London represented 24% of all UK Climate Adaptation exports in 2024/25 (24% in 2023/24). This is slightly higher than London's 23% of overall UK Sales for that year.

Figure 4.17 shows the proportion of London Climate Adaptation exports by Level 3 sub-sector for 2024/25, with Water 38% (38% in 2022/23); Built Environment 15%; Energy 12%; Professional Services 10% and Disaster Preparedness 8% being the leading five sub-sectors and accounting for 83% of all London Climate Adaptation exports (60% in 2022/23).

In Table 4.9 London's Climate Adaptation exports are shown by sub-sector for each of the three years of the report and have been expressed as a percentage of that sub-sector's overall Sales

Table 4.9: London's Climate Adaptation Exports as a % of Sales 2022/23 to 2024/25

	2022/23			2023/24			2024/25		
Level 2	**Sales £m**	**Exports £m**	**Exports as a % of Sales**	**Sales £m**	**Exports £m**	**Exports as a % of Sales**	**Sales £m**	**Exports £m**	**Exports as a % of Sales**
Agriculture & Forestry	31.4	2.2	7.1%	32.0	2.3	7.1%	32.8	2.3	7.1%
Built Environment	218.8	12.1	5.5%	222.6	12.3	5.5%	225.8	12.5	5.5%
Climate Data & Analytics	7.4	0.5	7.3%	7.5	0.5	7.3%	7.6	0.6	7.3%
Disaster Preparedness	90.8	6.9	7.5%	92.6	7.0	7.6%	93.9	7.1	7.6%
Energy	143.4	10.3	7.2%	145.7	10.5	7.2%	148.6	10.7	7.2%
Health	20.5	0.6	2.9%	20.9	0.6	2.9%	21.2	0.6	2.9%
ICT	220.7	6.1	2.7%	224.6	6.2	2.7%	228.3	6.3	2.7%
Natural Environment	17.0	0.5	2.7%	17.3	0.5	2.7%	17.5	0.5	2.7%
Professional Services	122.6	8.4	6.9%	125.0	8.6	6.9%	127.3	8.7	6.9%
Transport	94.1	3.7	3.9%	96.0	3.7	3.9%	97.5	3.8	3.9%
Waste	6.7	0.3	4.3%	6.8	0.3	4.3%	6.9	0.3	4.3%
Water	837.0	31.9	3.8%	852.1	32.5	3.8%	869.6	33.2	3.8%
Total	**1,810.5**	**83.5**	**4.6%**	**1,843.1**	**85.0**	**4.6%**	**1,877.1**	**86.5**	**4.6%**

Table 4.9 shows the average for 2024/25 is 4.6%, with variability across sub-sectors such as 2.7% for ICT, which contrasts with the higher 7.3% for Climate Data & Analytics. This is a reflection of the wide variety of sub-sectors in the Climate Adaptation dataset.

4.3 London's Climate Adaptation Compared with the Rest of the UK's Regions

4.3.1 London's Climate Adaptation Compared with the UK

Figure 4.18: London and the UK 2024/25 Climate Adaptation Sales by Level 2

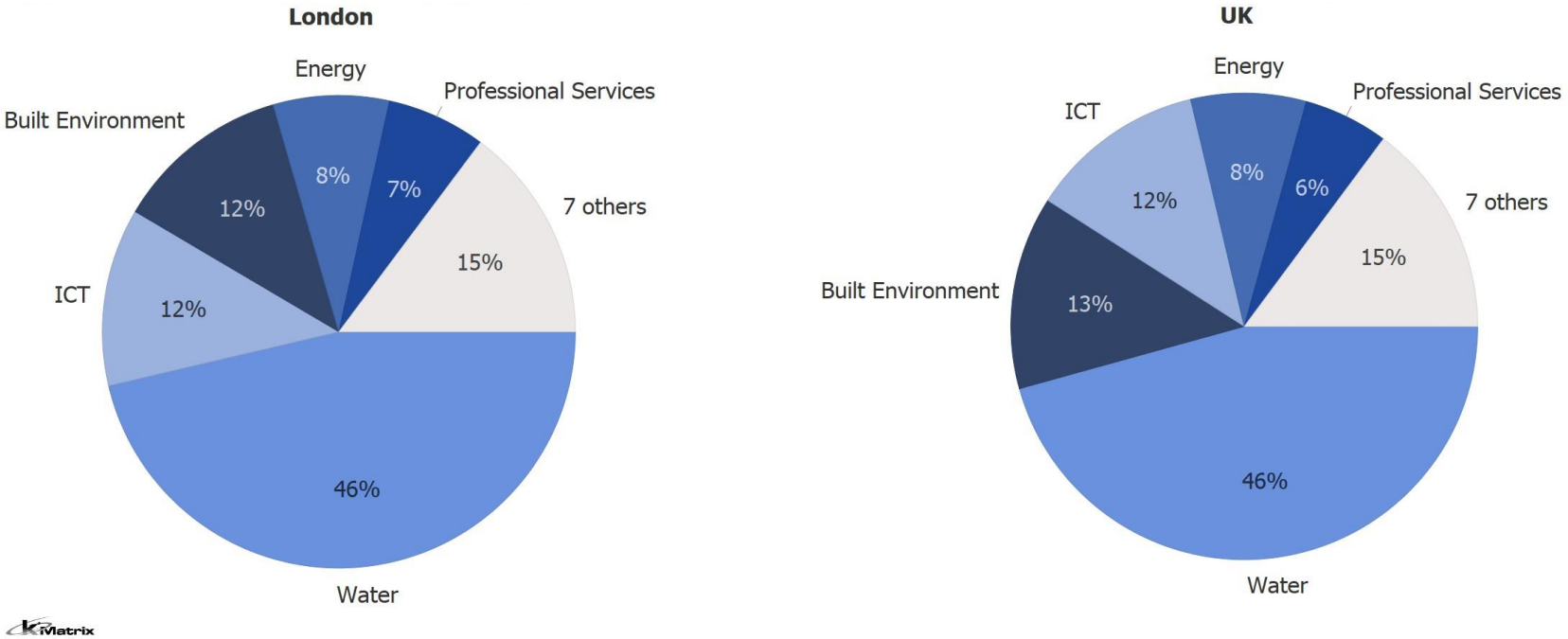


Figure 4.18 compares the profile of London and UK's Climate Adaptation activities at Level 2 for sales, and shows a very similar pattern, with all the largest five sub-sectors being within one-percentage point of each other, with the largest being Water with 46% for both London and UK.

Figure 4.19: London and the UK 2024/25 Climate Adaptation sub-sector Sales by Level 3

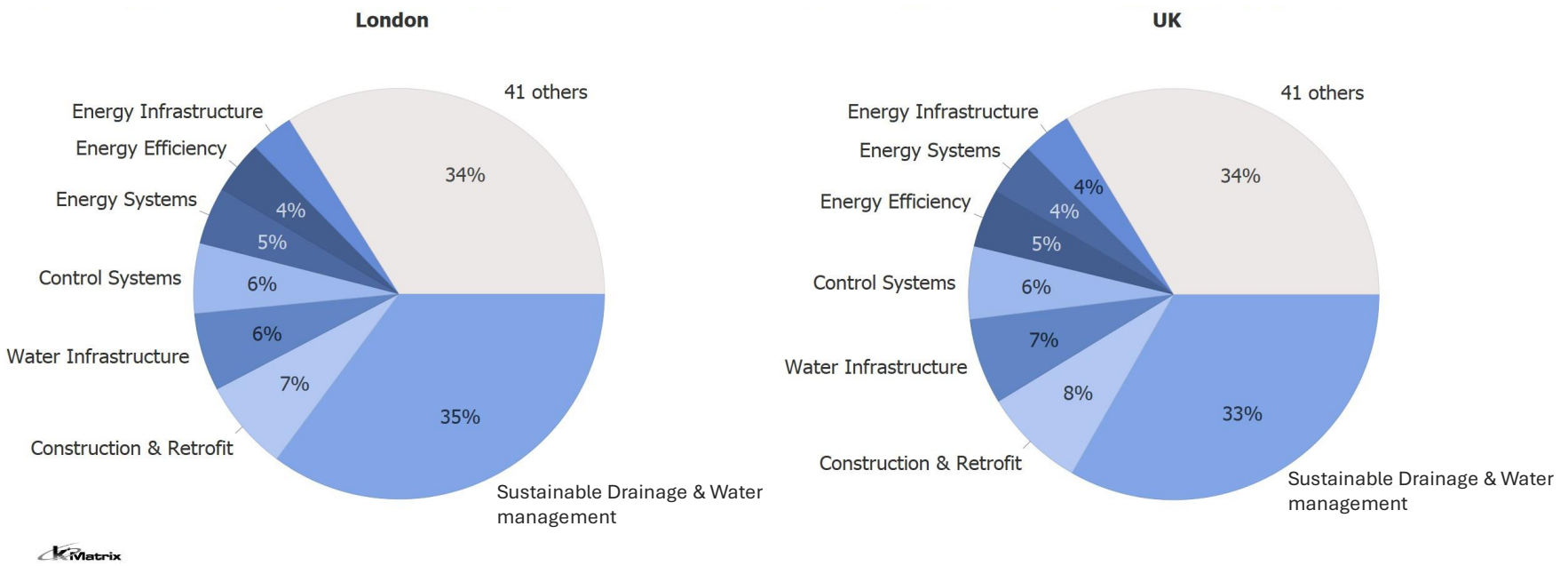


Figure 4.19 extends the analysis by comparing the profile of London and UK's Climate Adaptation activities at Level 3 for sales. There is slightly more variation at this level, with Sustainable Drainage & Water Management the largest sub-sector for both London (35%) and the UK (33%), followed by Construction & Retrofit (London 7%, UK 8%) and Water Infrastructure (London 6%, UK 7%).

Figure 4.20: UK Regional Sales, Employment and Companies 2024/25 as % of UK

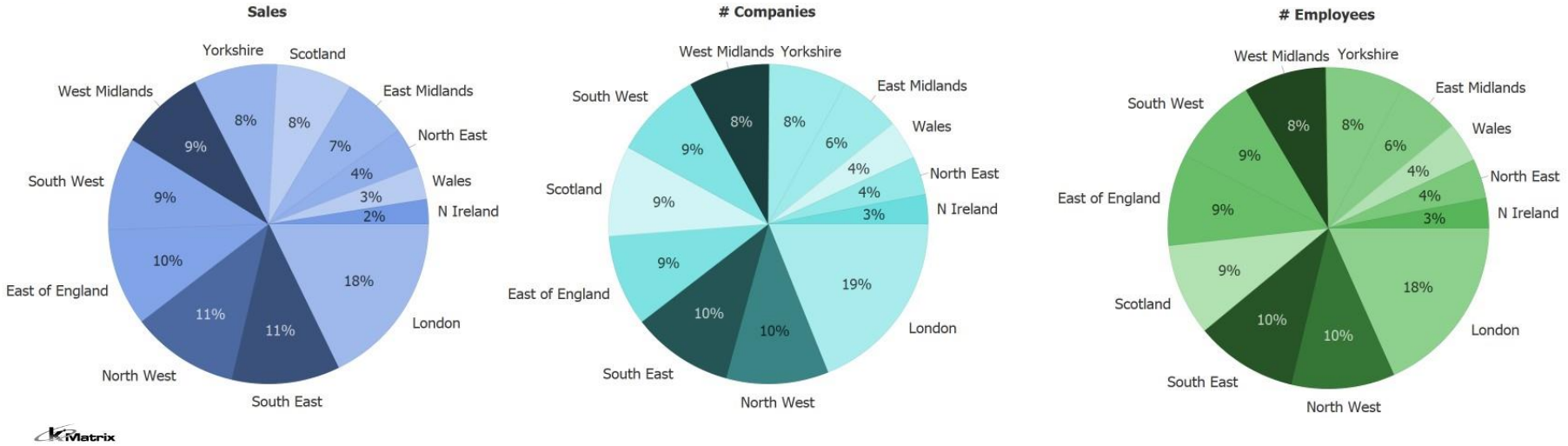


Figure 4.20 compares the "old" UK regions and the Devolved Administrations (for consistency with previous reporting) for sales, companies and employment.

London accounts for 18% of sales, 19% of companies and 18% of employment.

The next largest regions for Climate Adaptation Sales are the South East, North West and East of England. These same regions are within the top four after London for number of companies, and in the top five for the number of employees, with the fourth place held by Scotland.

Figure 4.21: Sales 2024/25 London as % of UK at Level 2

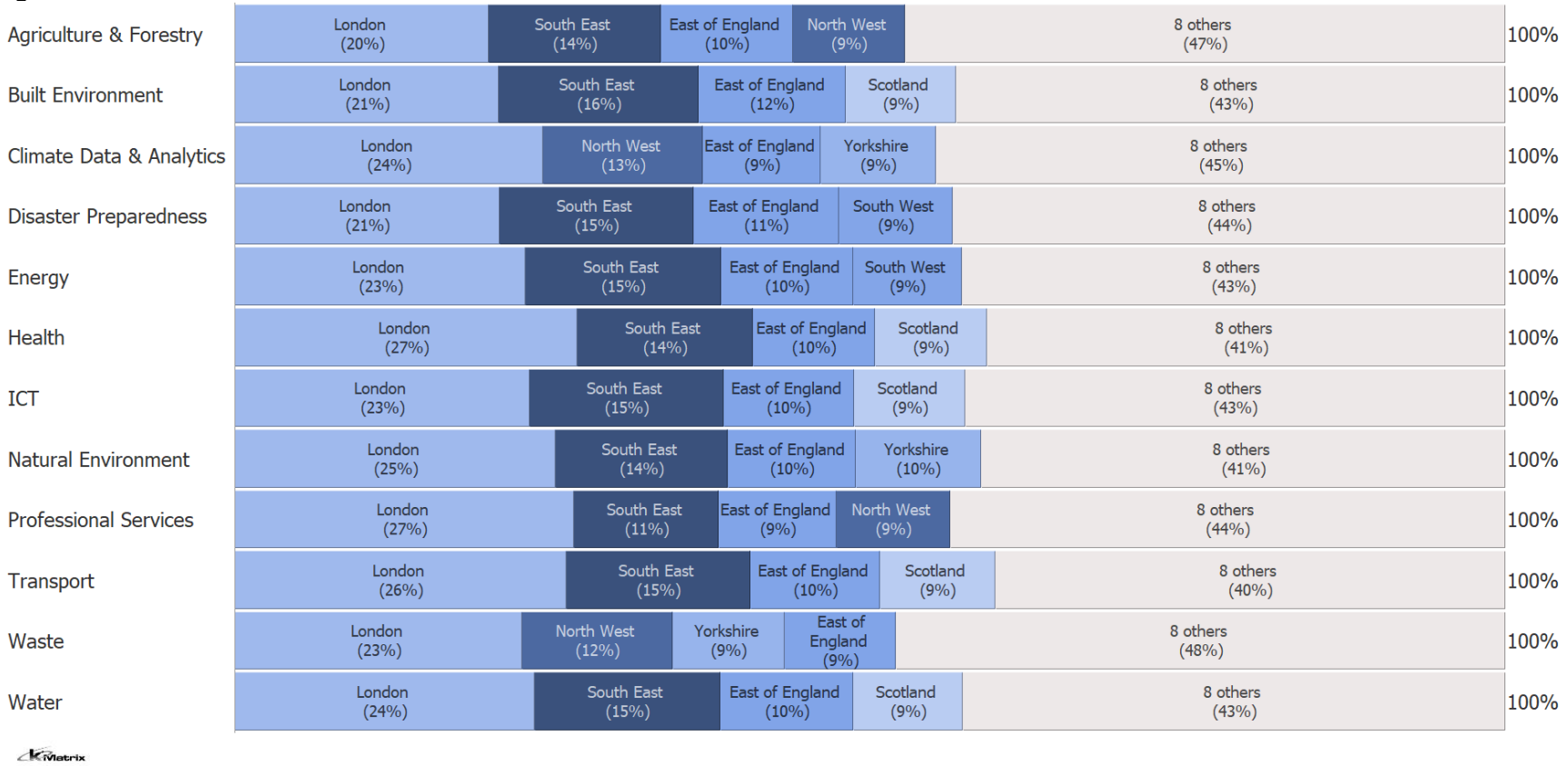


Figure 4.21 then compares the same regions again for 2024/25, but this time by all the Level 2 sub-sectors. This graphic shows how London's 18% of UK Sales is made up from a range of contributions, from Health at 27% to Agriculture & Forestry at 20%. London is the top region for all 12 Level 2 sub-sectors. The larger the percentage share of a sub-sector in a region, the higher the degree of supply chain localization in that sub-sector, in that region. The higher the degree of localization, the bigger the opportunity for the development of partnerships and regional cooperation.

London has the highest share of the market in 15 sub-sectors: Agriculture & Forestry (20%); Built Environment (21%); Climate & Data Analytics (24%); Disaster Preparedness (21%); Energy (23%); Health (27%); ICT (23%); Natural Environment (25%); Professional Services (27%); Transport (26%); Waste (13%); and Water (24%).

4.3.2 London's Impact on Regional Climate Adaptation Chains and Networks of Supply

In this section we analyse the impact of London's Climate Adaptation market on other regions of the UK.

This is provided as a measure of the sales within the chains and networks of supply of a region, generated by the Climate Adaptation market in London.

This analysis was performed by tracking sales of activities within London, through the chains and networks of supply, to determine point of origin and subsequent movement of constituent products or services.

Only value-added activities are included, from components to consultancy, R&D to assembly.

A limitation of the analysis is the activities measured are within the chain and network of supply and represent the traded activities within the sector, as such, untraded academic research is not counted.

The Sales numbers for sub-sectors within regions of the UK have been calculated through the same data triangulation process as other metrics within the study, but with additional locational data overlaid, specifically mapping the movement and trade of goods and services across the country.

This analysis included sources within the core source block, with additional accredited research sources augmenting the data triangulation process, and include:

- Data reported by companies
- Public sector sources
- Private sector sources
- Institutional sources
- Industrial and trade sources
- Academic Data sources (sector specific)
- Advertising and HR
- Financial, legal and investment
- Other (unpublished) sources

Table 4.10: 2023/24 Net benefit of London's Climate Adaptation market to the Rest of the UK, through chains and networks of supply, (£m)

Level 1	Level 2	London Total Sales (£m) 2023/24	Supply Chain Outside of London (£m)	Supply Chain as % of London
Climate Adaptation	Agriculture & Forestry	32.8	10.3	31.4%
	Built Environment	225.8	88.8	39.3%
	Climate Data & Analytics	7.6	2.9	37.8%
	Disaster Preparedness	93.9	30.4	32.4%
	Energy	148.6	53.2	35.8%
	Health	21.2	7.9	37.3%
	ICT	228.3	81.0	35.5%
	Natural Environment	17.5	6.8	38.6%
	Professional Services	127.3	46.8	36.8%
	Transport	97.5	38.3	39.3%
	Waste	6.9	2.3	33.4%
	Water	869.6	294.9	33.9%
Total		**1,877.1**	**663.6**	**35.3%**

Table 4.10 shows the net benefit of the Climate Adaptation market in London, to UK chains and networks of supply outside of London.

London's Climate Adaptation market sales in 2023/24 were £1.9bn and generated a further £664m, or an additional 35.3% in terms of sales within the chains and networks of supply across the UK, outside of London.

Sub-sectors in London which generated the highest sales in the chains and networks of supply outside of London were Water with £295m; Built Environment with £89m; ICT with £81m; and Energy with £53m.

London sub-sectors that generated the largest sales within the chains and network of supply outside of London, as a percentage of additional London sales were Built Environment with 39.3%; Transport with 39.3%; Natural Environment with 38.6%; and Climate Data & Analytics with 37.8%.

The sub-sectors that created the least additional sales were Agriculture & Forestry with 31.4% and Disaster Preparedness with 32.4%.

Figure 2.22: Net benefit of London's Climate Adaptation market to UK regions, through chains and networks of supply (£m)

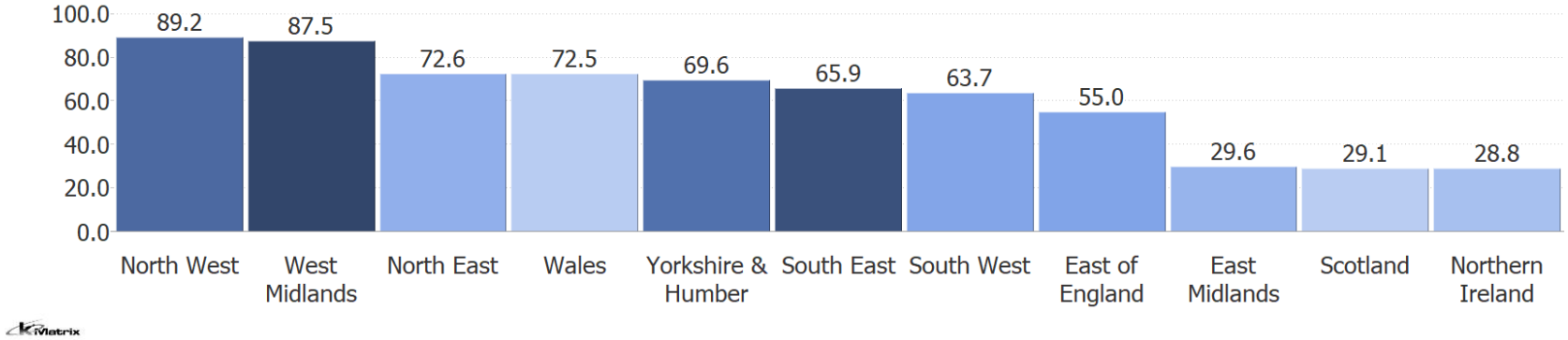


Figure 4.22 shows the net benefit of the Climate Adaptation market in London, to UK chains and networks of supply outside of London, by region. The greatest beneficiaries of sales generation as a direct result of London activity are:

- The North West with £89m or 4.8% of the London total sales
- The West Midlands with £88m or 4.7% of the London total sales
- The North East with £73m or 3.9% of the London total sales
- Wales with £73m or 3.9% of the London total sales
- Yorkshire & Humber with £70m or 3.7% of the London total sales
- Rest of the South East with £66m or 3.5% of the London total sales

Table 4.11: 2024/25 Net benefit of London's Climate Adaptation market to UK regions, through chains and networks of supply, by sub-sector (£m)

Level 3	London Total Sales (£m)	North West Benefit (£m)	North East Benefit (£m)	Yorkshire & Humber Benefit (£m)	West Midlands Benefit (£m)	East Midlands Benefit (£m)	East of England Benefit (£m)	South West Benefit (£m)	South East Benefit (£m)	Wales Benefit (£m)	Scotland Benefit (£m)	Northern Ireland Benefit (£m)
Agriculture & Forestry	32.8	1.0	1.2	1.0	1.1	0.8	1.3	0.7	1.7	0.7	0.4	0.3
Built Environment	225.8	17.4	10.5	9.3	8.2	3.0	7.7	6.0	9.6	8.6	5.3	3.3
Climate Data & Analytics	7.6	0.6	0.3	0.1	0.2	0.1	0.4	0.3	0.4	0.3	0.1	0.1
Disaster Preparedness	93.9	3.3	3.1	4.2	4.0	1.9	2.2	2.2	3.1	3.3	1.7	1.4
Energy	148.6	10.6	5.4	6.3	8.4	1.9	5.1	2.9	3.7	4.7	2.7	1.6

Health	21.2	1.6	1.1	0.4	0.5	0.4	0.8	0.7	0.5	0.9	0.5	0.5
ICT	228.3	11.4	9.4	5.6	10.4	4.6	7.0	8.8	6.8	11.0	3.4	2.6
Natural Environment	17.5	1.4	1.0	0.8	0.8	0.3	0.5	0.4	0.3	0.7	0.4	0.2
Professional Services	127.3	5.7	4.4	5.4	5.3	3.0	5.5	4.2	5.3	3.9	2.1	2.1
Transport	97.5	6.6	3.5	4.3	4.6	2.1	2.4	3.5	3.4	4.2	2.1	1.5
Waste	6.9	0.4	0.3	0.3	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1
Water	869.6	29.3	32.5	31.7	43.9	11.3	21.9	33.8	31.0	34.1	10.0	15.3
Total	**1,877.1**	**89.2**	**72.6**	**69.6**	**87.5**	**29.6**	**55.0**	**63.7**	**65.9**	**72.5**	**29.1**	**28.8**

Table 4.11 shows the significant London sub-sectors which generate at least £10m in sales in regions outside of London include:

- Built Environment in the North West with £17.4m (7.7%), and the North East with £10.5m (4.7%)
- Energy in the North West with £10.7m (7.1%)
- ICT in the North West with £11.4m (5.0%), Wales with £11.0m (4.8%), and the West Midlands with £10.4m (4.5%)

Part of the benefit in the chains and networks of supply come from investment from London companies made into the chains and networks of supply across the country and into Europe. Another element concerns R&D within universities, where London provides financial and practical support for development within industry, additionally, head office functions also play a role. More specifically, project assembly and coordination of major large projects often occurs in London, with companies drawing from new or established chains and networks of supply from across the country, to supply and fulfil significant contracts.

4.4 London's Climate Adaptation by Local Authority

4.4.1 Climate Adaptation by Local Authority

This section of the report analyses the Climate Adaptation market in London's Local Authorities.

Figure 4.23: London's Climate Adaptation Sales 2024/25 by Local Authority

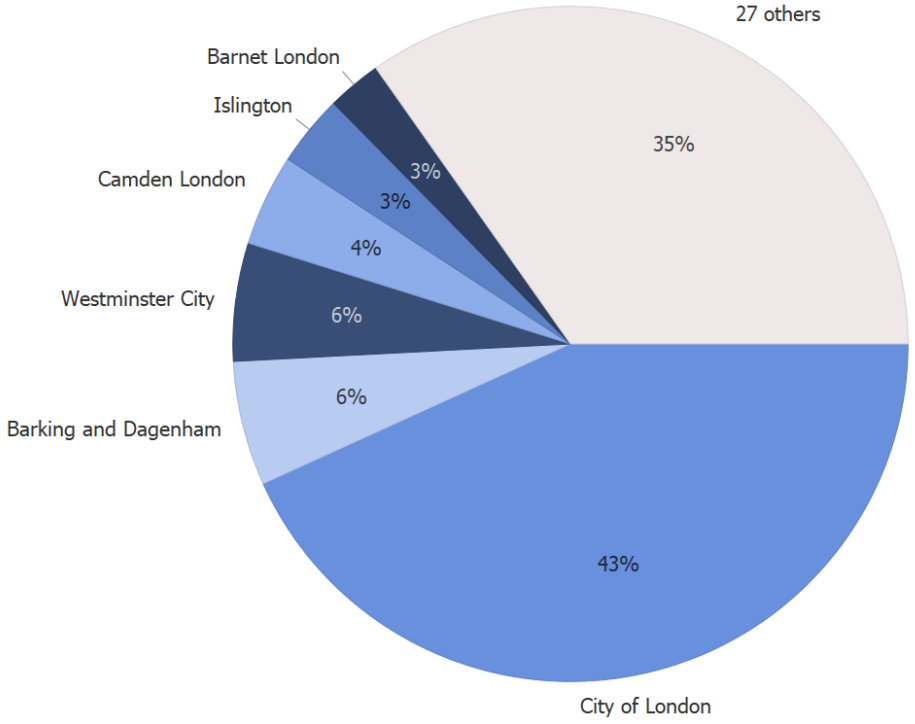


Figure 4.23 shows Climate Adaptation sales for 2024/25 split by Local Authority. The City of London accounts for 43% of London Climate Adaptation sales (43% in 2022/23), ahead of Barking & Dagenham (6%), Westminster (6%), and Camden (5%).

Local Authorities are analysed in more detail, by year, by economic measure and by Climate Adaptation activity in the following section.

4.4.2. Local Authority Analysis by Year and Sub-Sector

Table 4.12: Local Authorities Sales, Companies and Employment from 2022/23 to 2024/25

	Sales £m					# Companies					# Employees				
Local Authority	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**
Barking and Dagenham	107.7	2.1%	110.0	2.0%	112.1	52	2.1%	53	2.6%	54	305	1.6%	310	1.8%	316
Barnet	46.8	2.2%	47.9	1.6%	48.7	23	2.4%	24	2.4%	25	147	2.2%	150	2.2%	154
Bexley	14.0	1.7%	14.2	1.3%	14.4	7	1.9%	7	2.4%	7	36	1.7%	37	2.1%	38
Brent	22.2	1.8%	22.6	1.5%	22.9	13	1.7%	13	2.8%	13	72	1.3%	73	2.2%	75
Bromley	29.8	1.9%	30.4	1.5%	30.8	17	3.0%	17	1.9%	18	84	1.6%	85	1.5%	87
Camden	79.7	1.9%	81.2	1.4%	82.3	48	2.8%	49	2.2%	50	247	1.4%	251	1.6%	255
City of London	780.7	1.8%	795.1	2.0%	811.0	428	3.1%	442	2.4%	452	2,414	1.8%	2,458	2.0%	2,508
Croydon	19.9	1.5%	20.2	1.5%	20.6	13	2.5%	13	3.0%	13	70	1.4%	71	1.5%	72
Ealing	22.2	1.5%	22.6	2.1%	23.0	13	1.8%	13	2.0%	14	74	2.0%	75	1.9%	76
Enfield	30.7	1.4%	31.1	1.9%	31.7	16	2.8%	16	3.0%	17	81	1.7%	83	1.2%	84
Greenwich	12.2	2.0%	12.5	1.7%	12.7	6	2.1%	6	2.5%	6	35	1.4%	35	2.0%	36
Hackney	38.2	1.8%	38.9	2.1%	39.7	19	2.2%	19	2.8%	19	114	1.6%	115	1.4%	117
Hammersmith and Fulham	20.1	1.9%	20.4	2.2%	20.9	9	2.1%	10	1.8%	10	62	2.2%	63	1.8%	65
Haringey	13.8	1.5%	14.0	2.0%	14.3	8	2.0%	8	2.7%	8	46	1.7%	46	1.7%	47
Harrow	24.0	1.7%	24.4	2.0%	24.9	13	2.2%	13	3.1%	13	72	1.8%	74	2.1%	75
Havering	8.9	2.2%	9.1	1.9%	9.3	5	1.3%	5	2.5%	5	28	2.2%	28	1.9%	29
Hillingdon	40.5	1.5%	41.1	1.8%	41.8	18	2.9%	19	2.2%	19	102	1.6%	103	1.5%	105
Hounslow	18.8	1.5%	19.0	2.0%	19.4	9	2.2%	10	2.7%	10	57	1.6%	58	1.4%	59
Islington	62.1	1.5%	63.1	1.6%	64.1	31	2.6%	32	1.9%	32	184	1.7%	187	1.8%	190
Kensington and Chelsea	29.3	1.4%	29.8	2.1%	30.4	13	2.3%	13	1.8%	14	78	1.8%	80	1.7%	81
Kingston upon Thames	17.2	1.4%	17.4	1.5%	17.7	8	2.5%	8	2.0%	8	53	1.5%	54	2.0%	55

Lambeth	31.8	1.7%	32.4	1.6%	32.9	19	2.0%	19	2.2%	19	101	1.6%	102	1.7%	104
Lewisham	15.3	1.9%	15.5	1.2%	15.7	8	2.1%	8	3.1%	8	44	1.7%	45	1.3%	45
Merton	15.4	1.4%	15.7	2.2%	16.0	8	2.4%	8	2.4%	8	44	2.0%	45	1.6%	45
Newham	8.8	2.1%	9.0	1.8%	9.2	5	1.4%	5	2.0%	5	30	1.8%	31	1.5%	31
Redbridge	17.6	1.9%	17.9	2.0%	18.3	10	2.3%	11	2.6%	11	64	1.7%	65	1.6%	66
Richmond upon Thames	37.7	1.4%	38.2	2.1%	39.0	19	2.7%	20	1.9%	20	108	1.9%	110	2.0%	112
Southwark	33.4	2.0%	34.1	1.2%	34.5	18	2.0%	18	2.4%	19	102	1.5%	103	1.9%	105
Sutton	29.9	1.9%	30.5	1.5%	30.9	16	2.7%	16	2.5%	17	91	2.0%	93	2.2%	95
Tower Hamlets	29.0	1.5%	29.4	1.9%	29.9	13	2.1%	14	2.5%	14	73	1.5%	74	1.4%	75
Waltham Forest	17.5	2.2%	17.9	2.0%	18.3	9	2.3%	9	2.7%	9	51	1.5%	51	1.6%	52
Wandsworth	32.5	1.3%	32.9	2.3%	33.7	15	2.3%	16	2.9%	16	83	1.8%	84	1.8%	86
Westminster City	102.8	1.9%	104.8	1.3%	106.1	56	2.5%	57	3.0%	59	373	1.3%	378	1.6%	384

Growth is between one year and the next

Table 4.12 shows the two years of data for Local Authorities for sales, companies and employment. Growth between years is shown in red. Growth between 2022/23 and 2024/25 across all metrics is generally similar at between 1-3% for all Local Authorities.

Figure 4.24: London's Local Authorities Climate Adaptation Sales 2024/25 (Level 2)

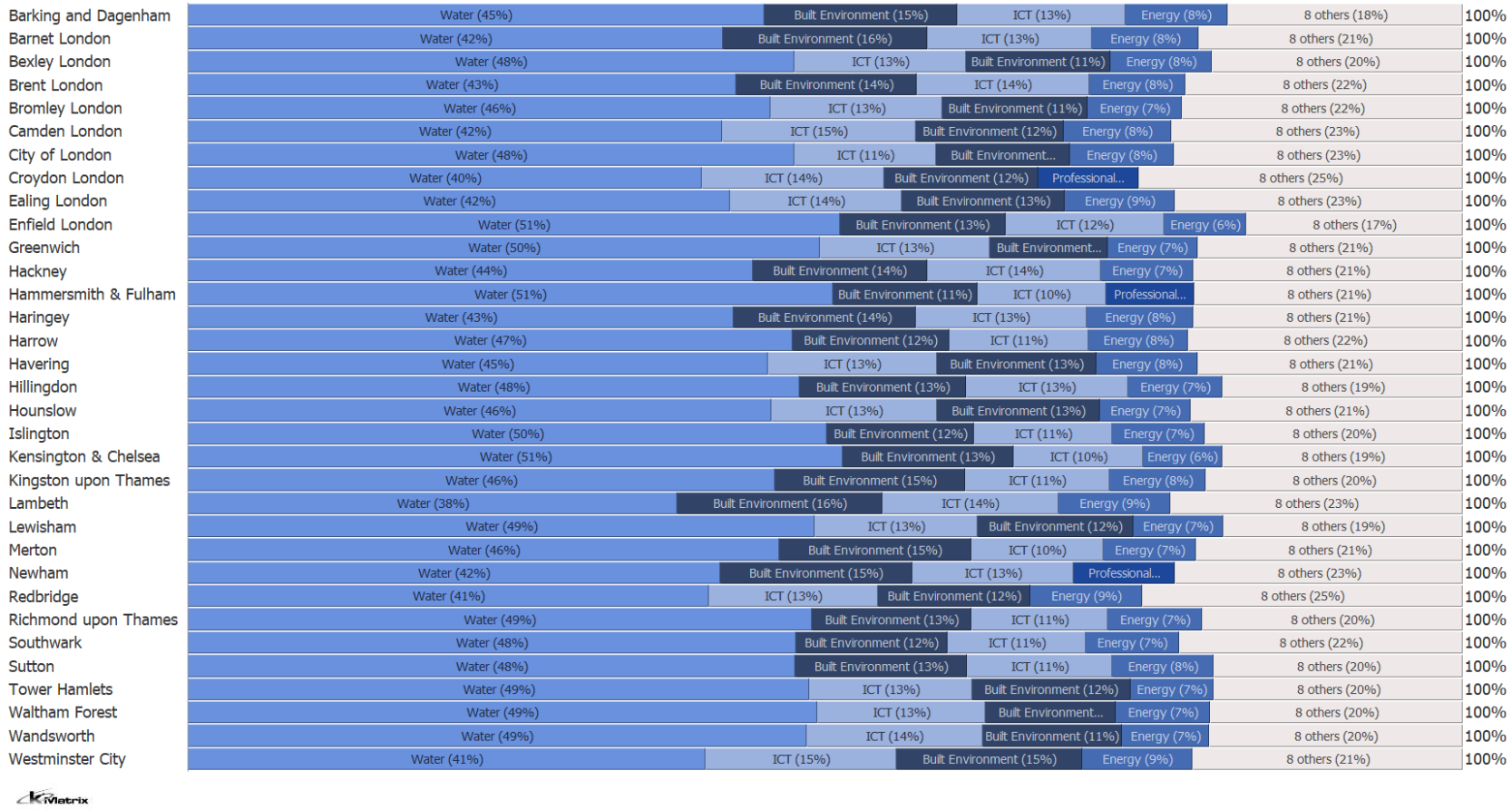


Figure 4.24 shows the different profiles of London's Local Authorities when sales are split at Level 2. There are significant ranges in proportions for Water 38-51% (38-51% in 2022/23), ICT 10-15% (10-15% in 2022/23), Built Environment 9-16% (9-16% in 2022/23), Energy 6-9% (6-9% in 2022/23), and Professional Services 5-8% (5-8% in 2022/23). This highlights that London's Local Authorities are not a homogeneous market and show subtle regional variations in activity within the Climate Adaptation sector. This is highlighted by Figure 4.25 below.

Figure 4.25: London's Local Authorities Climate Adaptation Sales 2024/25 at Level 3

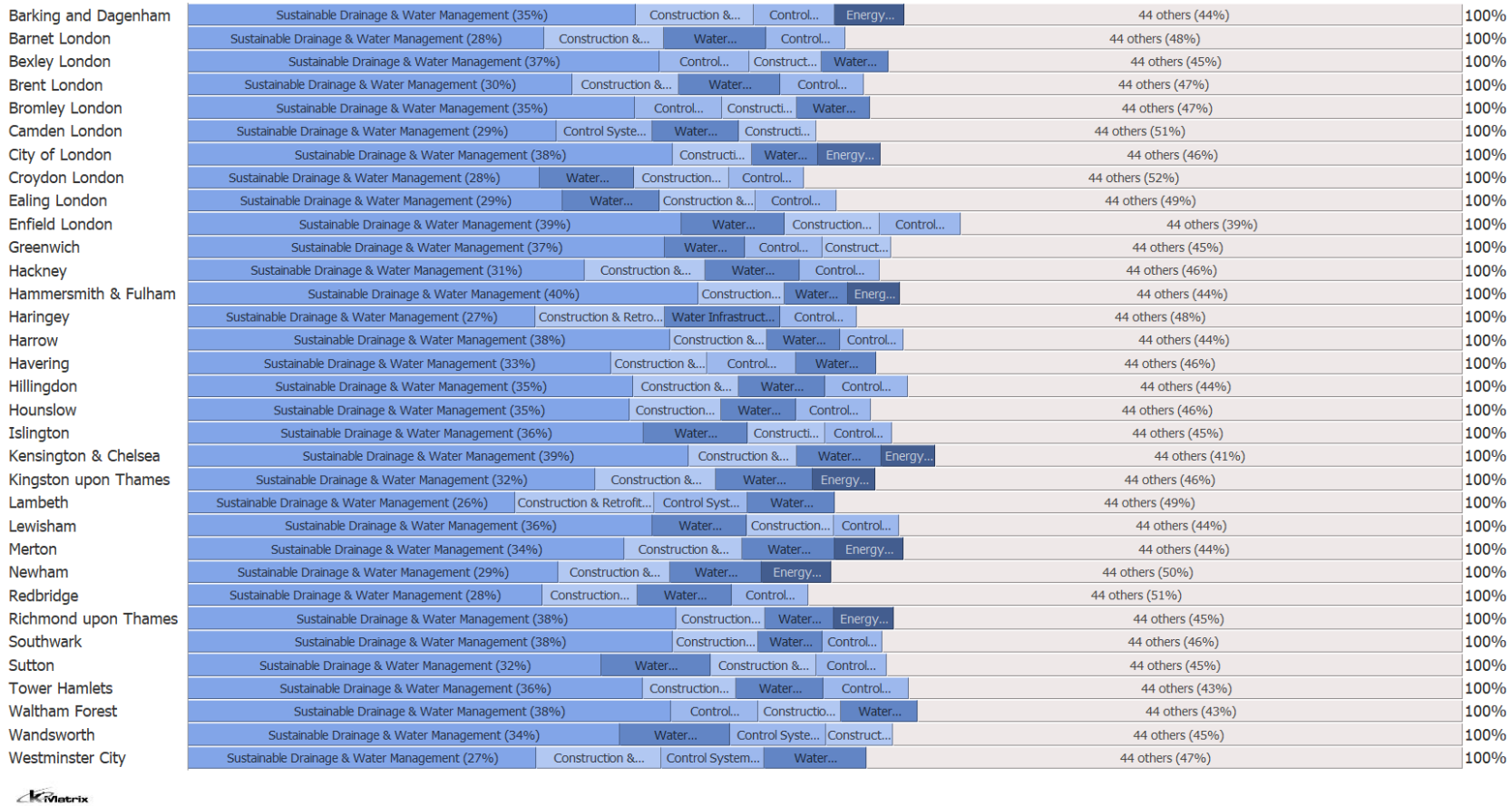


Figure 4.25 extends the analysis to include the Top 4 sub-sectors for each of London's Local Authorities. Typically, four sub-sectors account for over 55% of the total value, but the sub-sectors and their rankings do differ significantly across the 33 Local Authorities. But there are some consistent sub-sectors running through many of London's Local Authorities and these include Sustainable Drainage & Water Management, Construction & Retrofit, Control Systems (ICT) and Water Infrastructure, they are represented in most of London's Local Authorities and are consistent with London's top sub-sectors.

4.5 London's Climate Adaptation by Sub-Region

4.5.1 Climate Adaptation by London's Sub-Region

This section of the report analyses London's Sub-regions. Boroughs in each Sub-Region are provided in Appendix 4.

Figure 4.26: London's Climate Adaptation Sales 2024/25 by Sub-Region

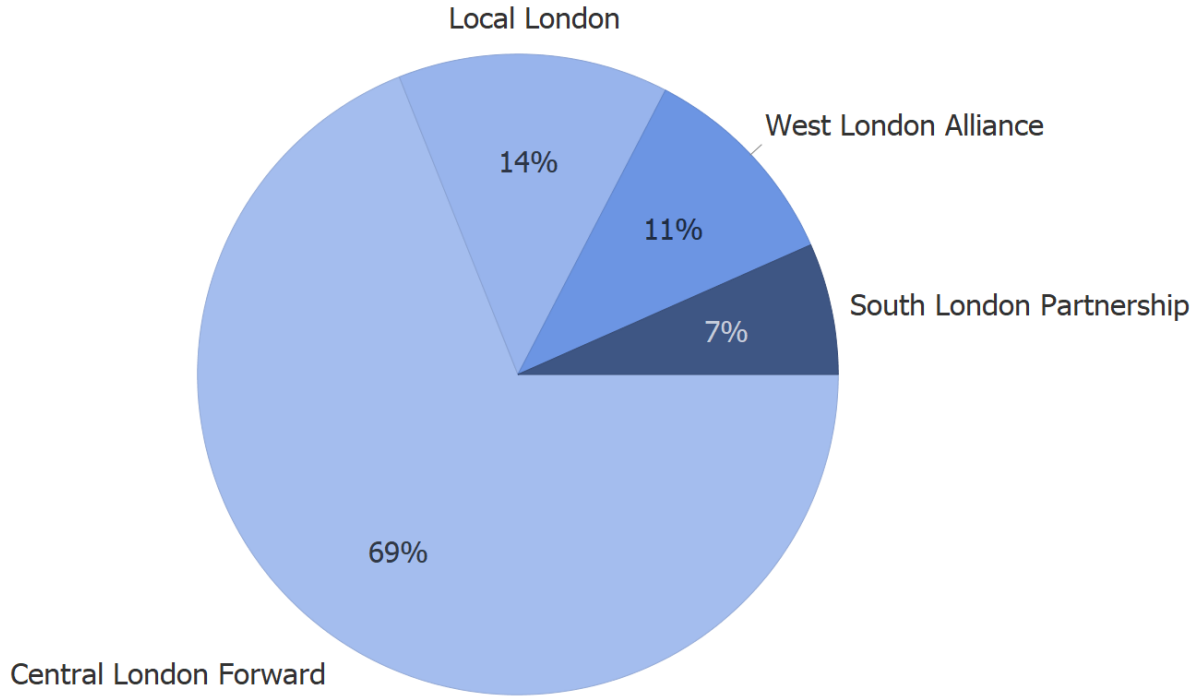


Figure 4.26 shows Climate Adaptation for 2024/25 split by sub-region for sales. Central London Forward accounts for 69% of London's Climate Adaptation sales (69% in 2022/23), 70% of companies (70% in 2022/23) and 70% of employment (70% in 2022/23).

London's sub-regions are analysed in more detail, by year, by economic measure and by Climate Adaptation activity in the following section.

4.5.2 London's Sub-regional Analysis by Year and Sub-Sector

Table 4.13: London's Sub-regions Sales, Companies and Employment from 2022/23 to 2024/25

	Sales £m					# Companies					# Employees				
London Sub-region	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**
Central London Forward	1,248.6	1.8%	1,271.0	1.9%	1,294.6	675	2.8%	694	2.4%	711	3,857	1.7%	3,923	1.9%	3,997
Local London	247.3	2.0%	252.1	1.8%	256.7	126	2.3%	129	2.5%	133	714	1.6%	726	1.7%	738
South London Partnership	120.1	1.5%	122.0	1.8%	124.1	64	2.6%	66	2.4%	67	366	1.8%	372	1.9%	380
West London alliance	194.5	1.8%	198.0	1.8%	201.6	99	2.2%	101	2.4%	104	587	1.8%	597	1.9%	609

Growth is between one year and the next

Table 4.13 shows the two years of growth data for London's sub-regions for sales, companies and employment. Growth between 2022/23 and 2024/25 across metrics are generally similar at between 1-3% for the sub-regions.

Figure 4.27: London's Sub-regions Climate Adaptation Sales 2024/25 (Level 2)

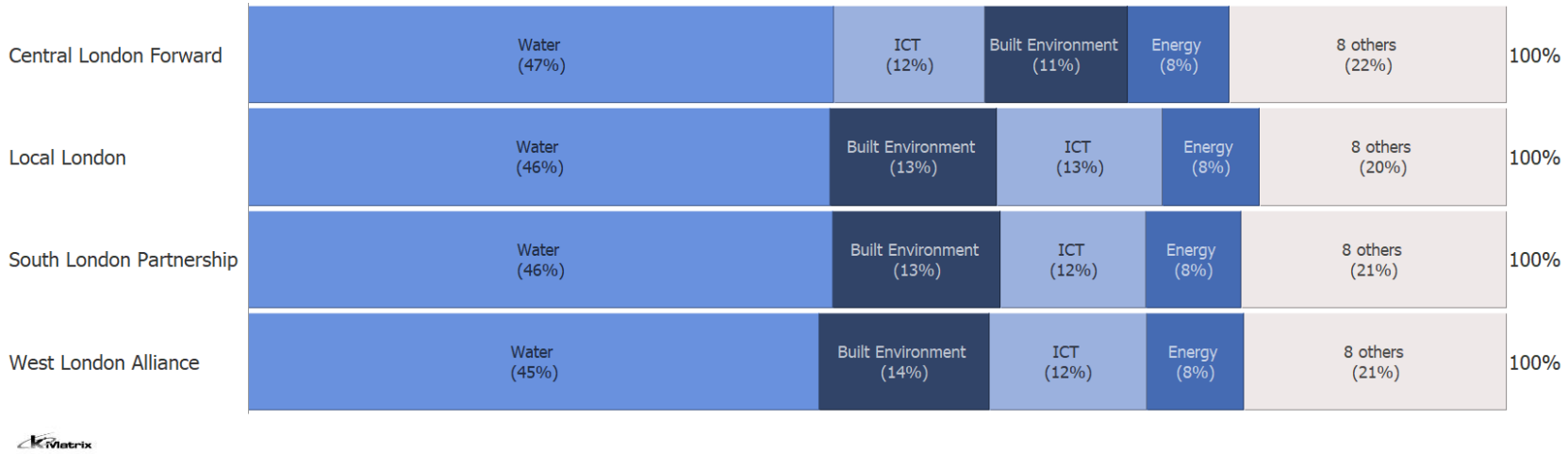


Figure 4.27 shows the different profiles of London's sub-regions when sales are split at Level 2. Water 45-47% (45-46% in 2022/23), ICT 11-13% (12-13% in 2022/23), Built Environment 11-14% (11-14% in 2022/23) and Energy 8% (8% in 2022/23). This highlights that London's Sub-regions are not a homogeneous market and show subtle regional variations in activity within the Climate Adaptation sector. This is further confirmed by Figure 4.28 below.

Figure 4.28: London's Sub-regions Climate Adaptation Sales 2024/25 at Level 3

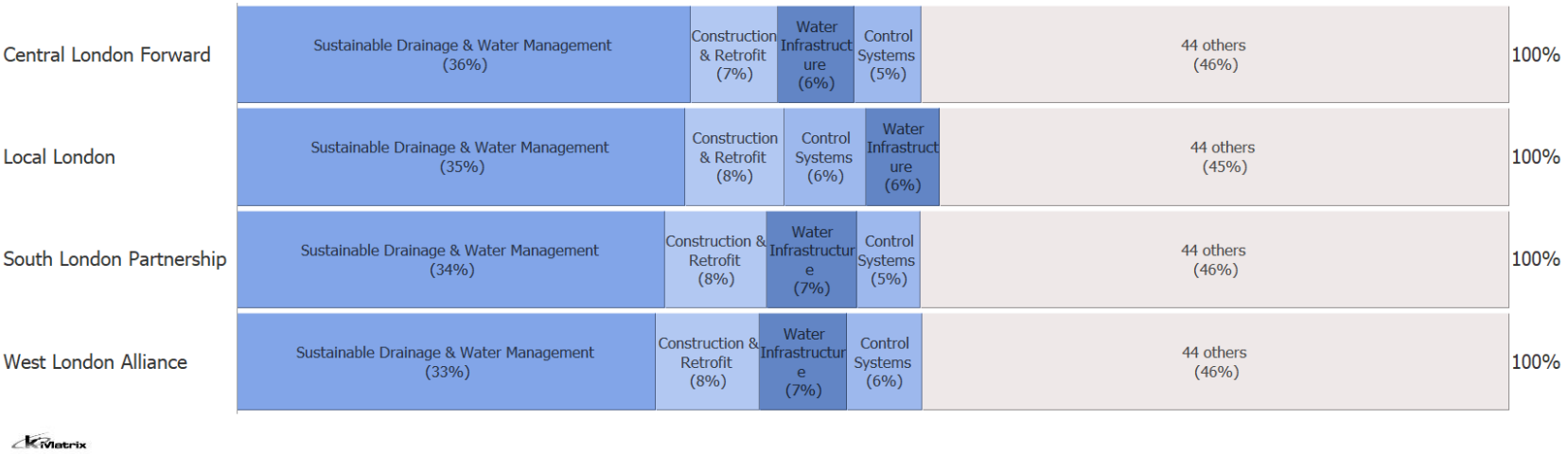


Figure 4.28 extends the analysis to include the Top 4 Level 3 sub-sectors for each of London's sub-regions. Typically, four sub-sectors account for over 55% of the total value, but the sub-sectors and their rankings do differ across the four sub-regions. But there are some consistent sub-sectors including Sustainable Drainage & Water Management, Construction & Retrofit, Control Systems (ICT) and Water Infrastructure, they are represented in most of London's Local Authorities and are consistent with London's top sub-sectors.

4.5.3 London Sub-regions' Climate Adaptation Exports

This section of the report addresses London sub-regions' Climate Adaptation Exports over the past two years and then identifies leading Climate Adaptation export products and services.

Figure 4.29: London Sub-regions' Exports (£m) 2022/23 to 2024/25

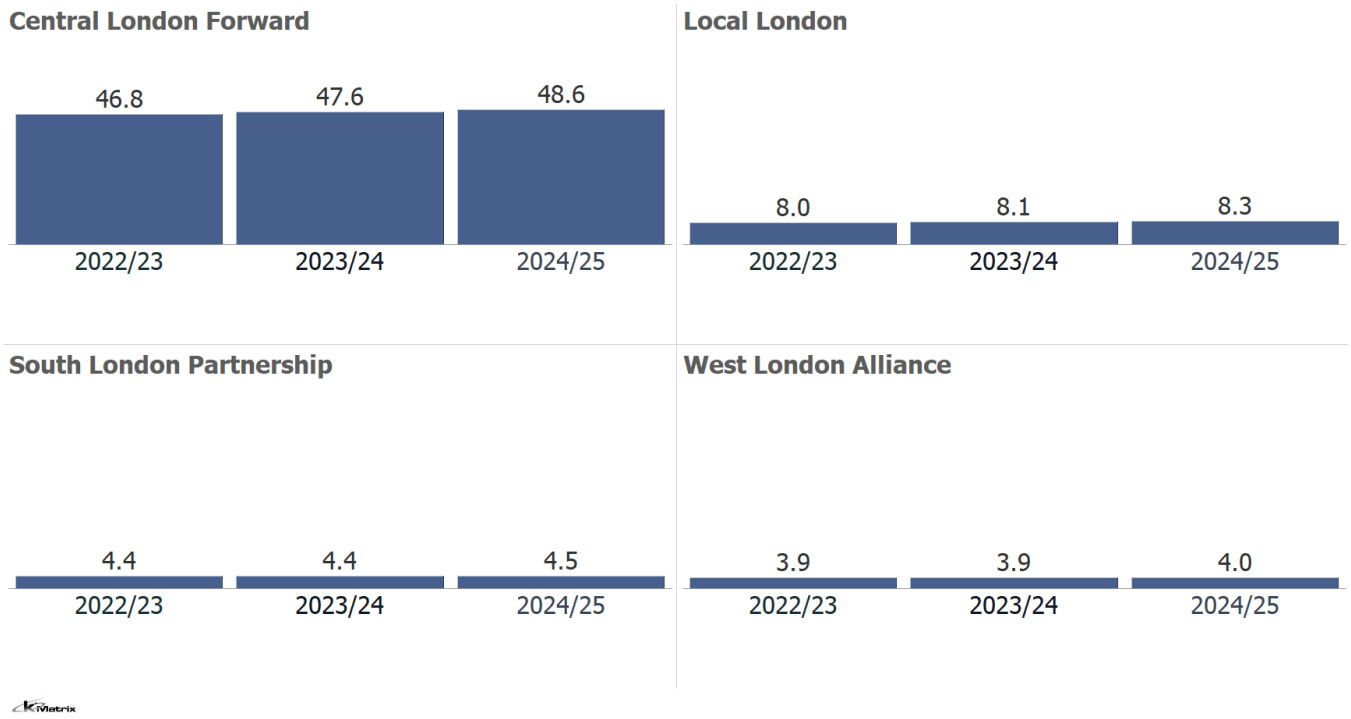


Figure 4.29 shows the value of Central London Forward Exports was £49m in 2024/25, up from £47m in 2022/23. They grew 1.7% from 2022/23 to 2023/24 and 2.1% from 2023/24 to 2024/25.

The value of Local London Exports was £8.3m in 2024/25, up from £8.0m in 2022/23. They grew 1.3% from 2022/23 to 2023/24 and 2.5% from 2023/24 to 2024/25.

The value of South London Partnership Exports was £4.5m in 2024/25, up from £4.4m in 2022/23. They grew 1.6% from 2022/23 to 2023/24 and 1.8% from 2023/24 to 2024/25.

The value of West London Alliance Exports was £4.0m in 2024/25, up from £3.9m in 2022/23. They grew 1.5% from 2022/23 to 2023/24 and 1.8% from 2023/24 to 2024/25.

This is compared to London growth of 1.8% and 1.8%, respectively.

Figure 4.30: London Sub-regions' Exports (%) by Sub-Sector 2024/25

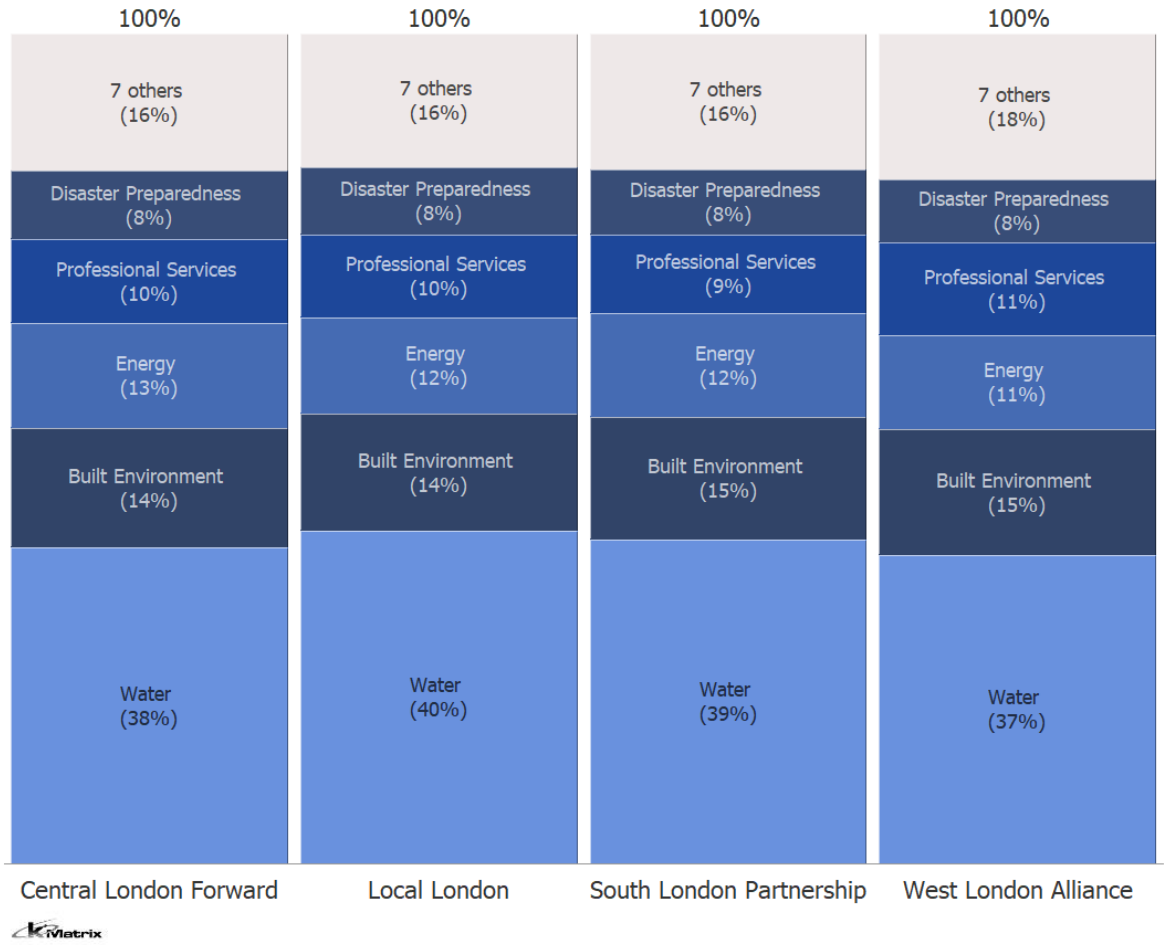


Figure 4.30 illustrates the proportion of Climate Adaptation exports does not vary significantly by sub-regions.

The top five export sub-sectors in Central London Forward are: Water 38%; built Environment 14%; Energy 13%; Professional services 10%; and Disaster Preparedness 8%, accounting for 84% of exports.

The top two export sub-sectors in Local London are: Water 40%; built Environment 14%; Energy 12%; Professional services 10%; and Disaster Preparedness 8%, accounting for 84% of exports.

The top two export sub-sectors in South London Partnership are: Water 39%; built Environment 15%; Energy 12%; Professional services 9%; and Disaster Preparedness 8%, accounting for 84% of exports.

The top two export sub-sectors in West London Alliance are: Water 37%; built Environment 15%; Energy 11%; Professional services 11%; and Disaster Preparedness 8%, accounting for 82% of exports.

4.5.4 London Sub-regions Climate Adaptation Timeseries

Figure 4.31 Climate Adaptation London Sub-regions – Total Sales (£m)

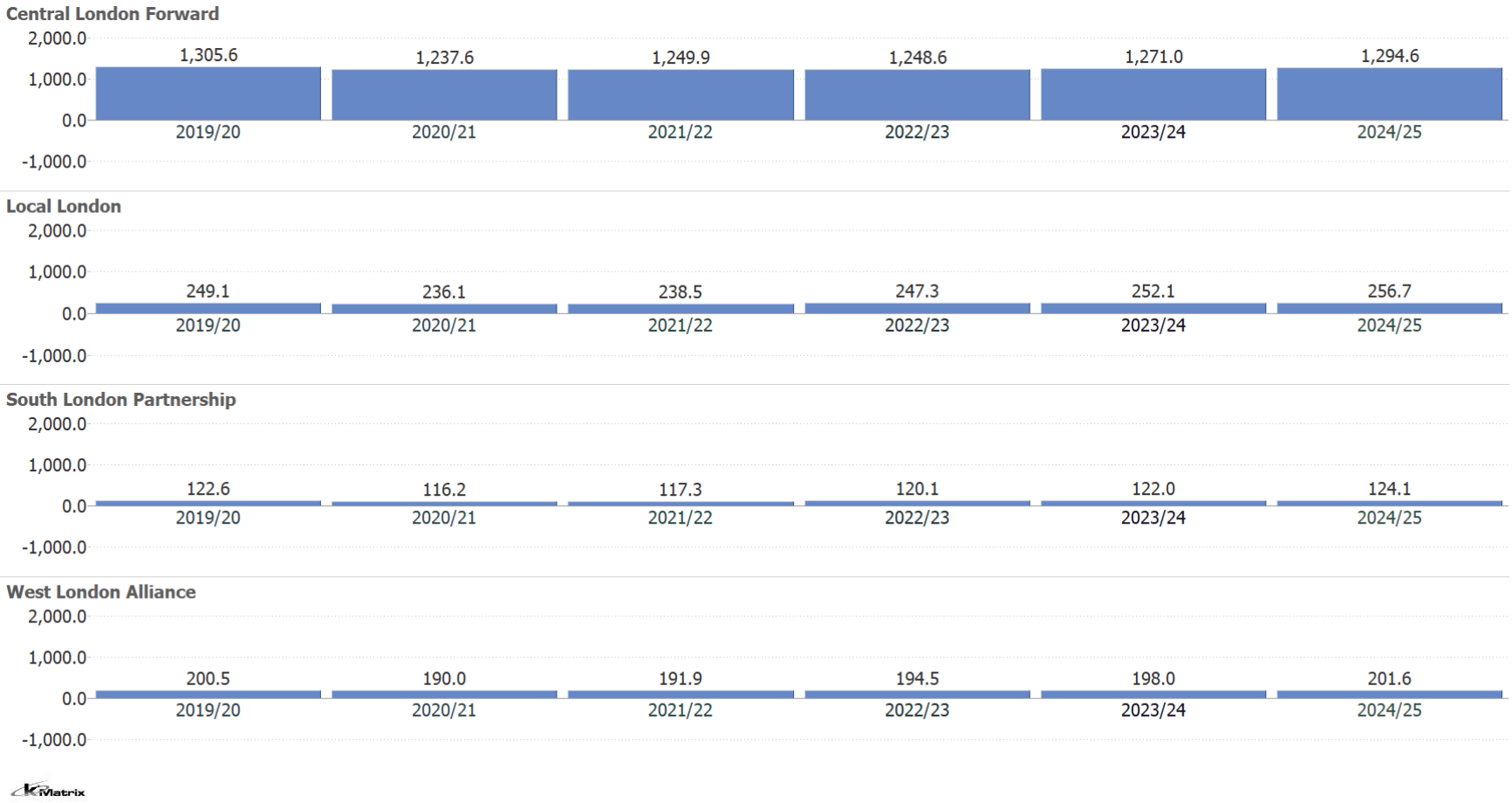


Figure 4.31 illustrates the annual sales for the Climate Adaptation sector in the four London Sub-regions. Central London Forward contracted -1%, Local London grew by 3%, South London Partnership grew by 1% and West London Alliance grew by 1% between 2019/20 and 2024/25. This compares with London growth of 2% and UK growth of 1% between 2019/20 and 2024/25.

Figure 4.32: Climate Adaptation London Sub-regions – Total Number of Companies

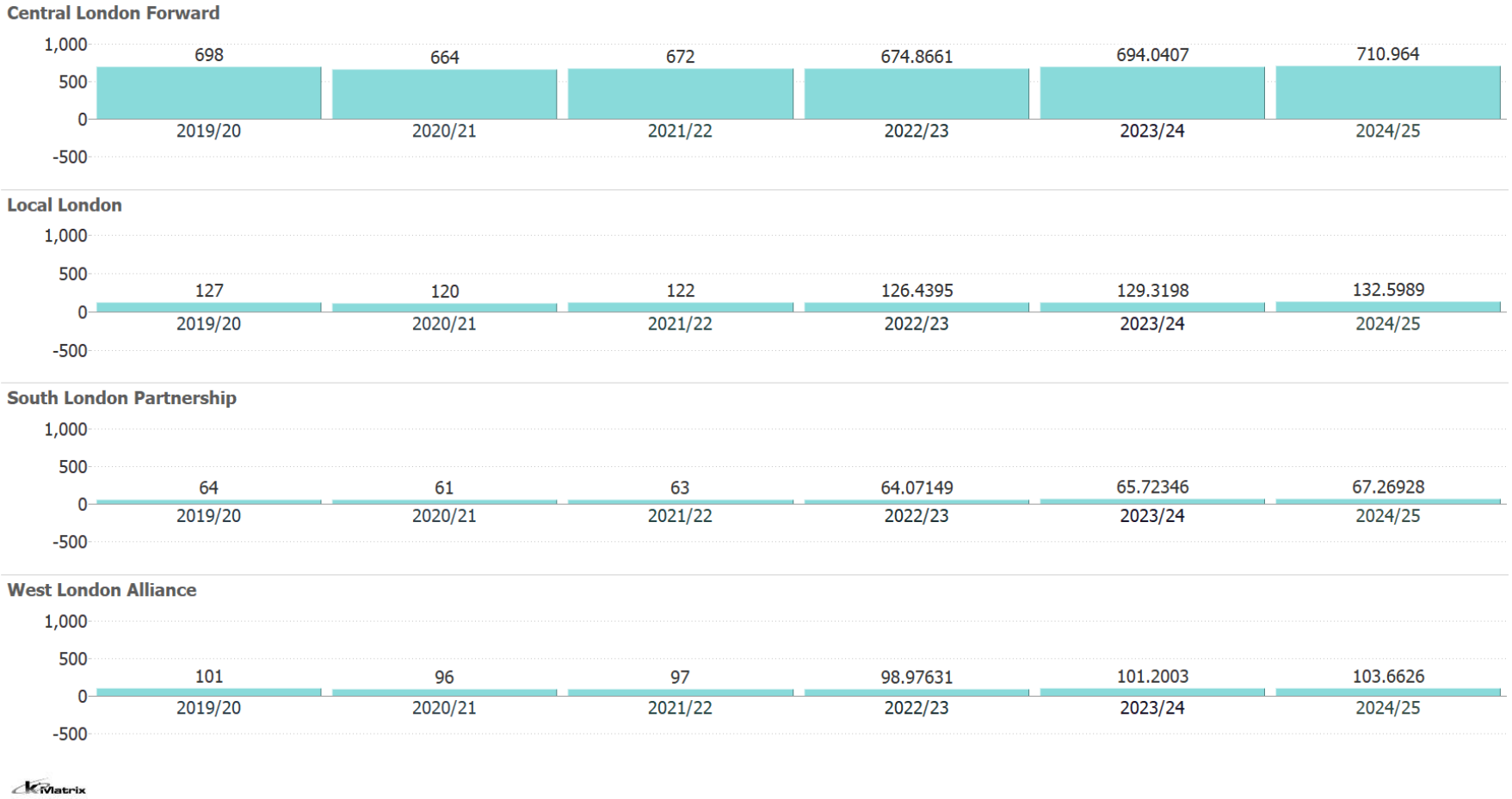


Figure 4.32 illustrates the annual number of companies for the Climate Adaptation sector in the four London Sub-regions. Central London Forward grew 2%, Local London grew by 4%, South London Partnership by 5% and West London Alliance by 3% between 2019/20 and 2024/25. This compares with London growth of 2% and UK growth of 0.4% 2019/20 and 2024/25.

Figure 4.33: Climate Adaptation London Sub-regions – Total Number of Employees

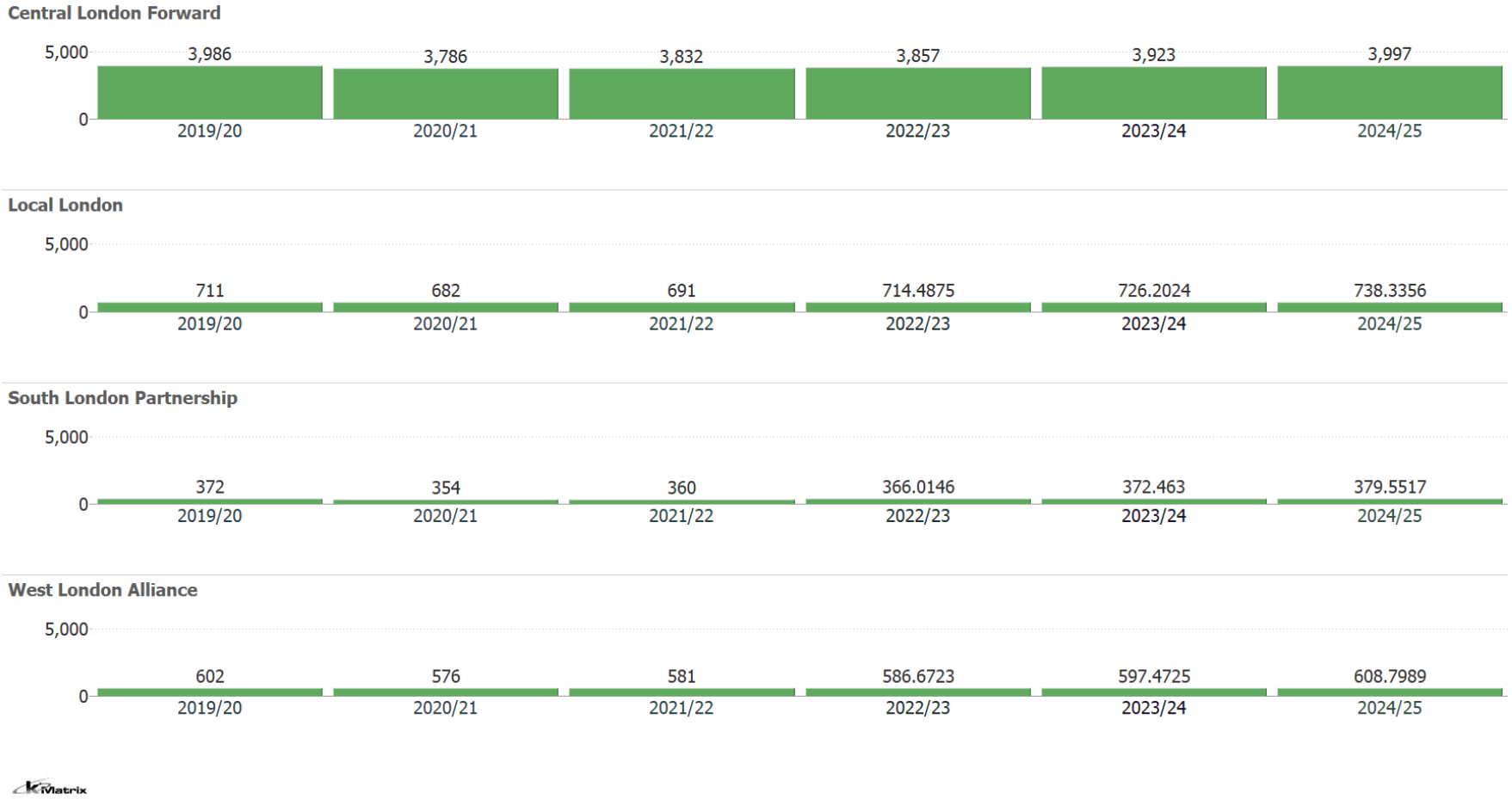


Figure 4.33 illustrates the annual number of employment for the Climate Adaptation sector in the four London Sub-regions. Central London Forward grew 0.3%, Local London grew by 4%, South London Partnership by 2% and West London Alliance by 1% between 2019/20 and 2024/25. This compares with London growth of 1% and UK growth of 0.4% 2019/20 and 2024/25.

5. London's Low Carbon Environmental Goods and Services (LCEGS)

5.1 London and the UK's LCEGS Timeseries

Figure 5.1: LCEGS London – Total Sales (£m)

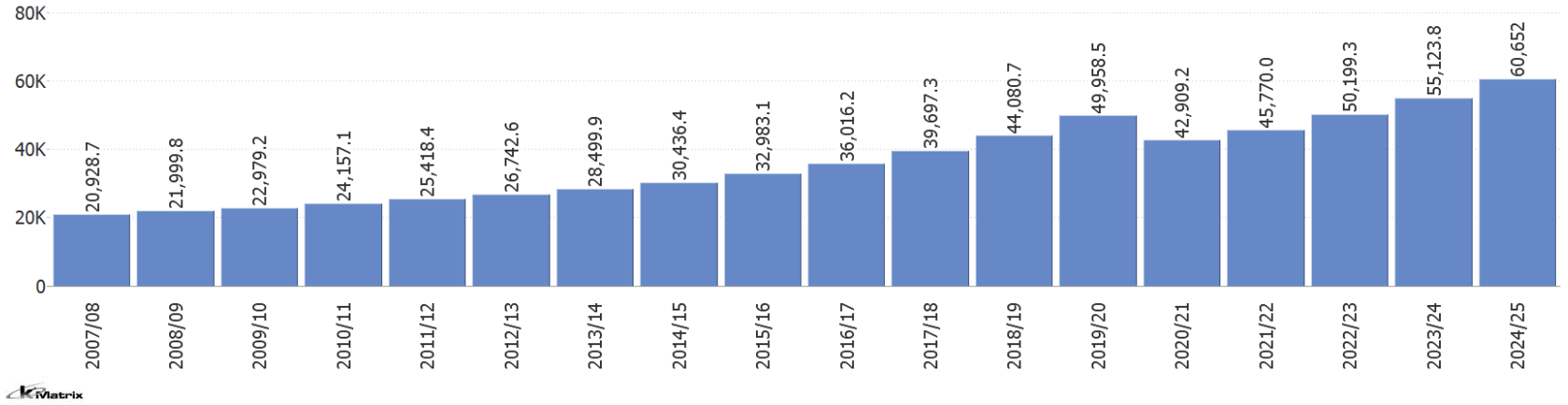
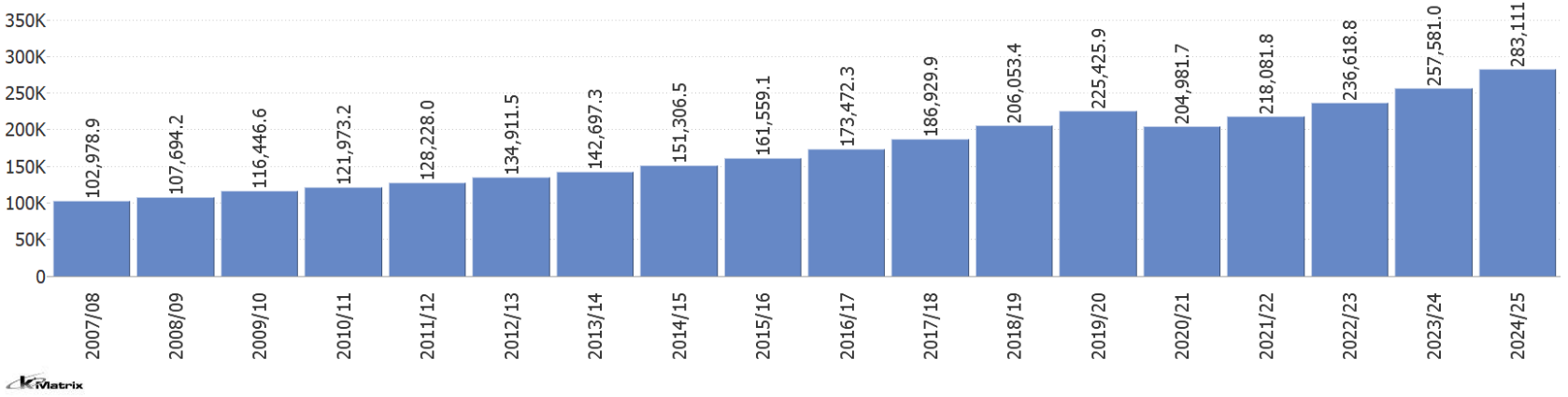


Figure 5.2: LCEGS UK – Total Sales (£m)



Figures 5.1 and 5.2 illustrate the annual sales grew year-on-year for the LCEGS sector, in both the UK and London between 2007/08 and 2019/20. The London market contracted -14% and the UK market by -9% between 2019/20 and 2020/21 when the pandemic was at its peak. The London market grew by 21% and the UK by 20% between 2022/23 and 2024/25. Overall, the London market has grown 190%, and the UK market has grown 175% between 2007/08 and 2024/25. If Carbon Finance is removed, growth was 129% in London and 150% in the UK between 2007/08 and 2024/25.

Figure 5.3: LCEGS London – Total Number of Companies

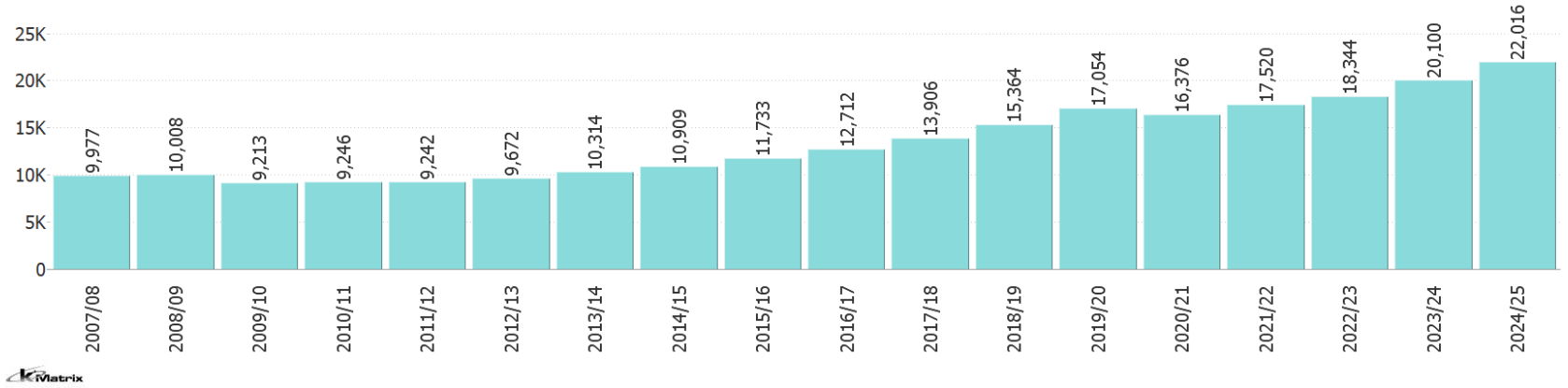
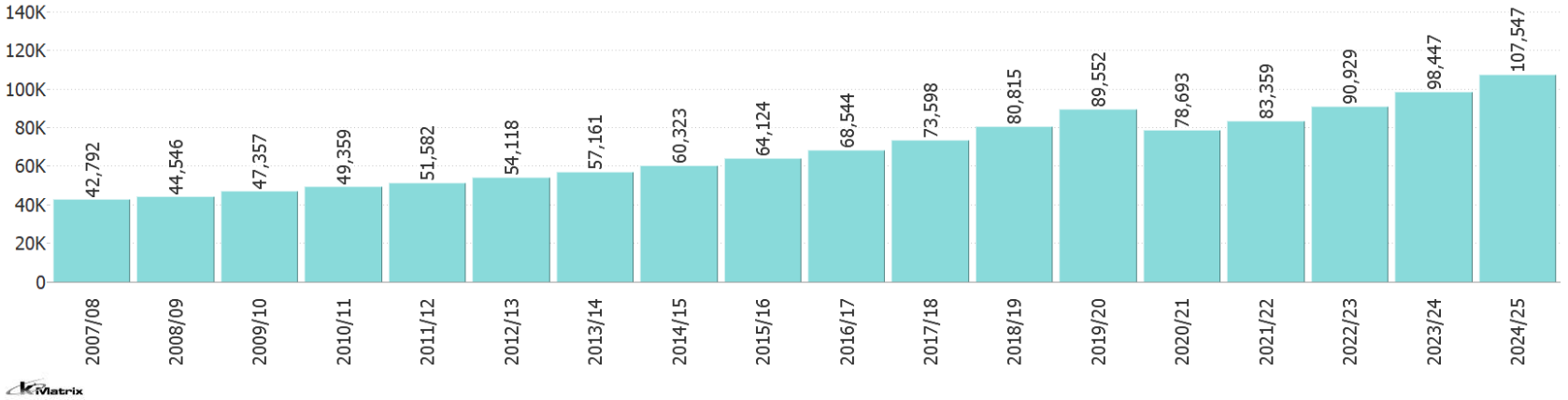


Figure 5.4: LCEGS UK – Total Number of Companies



Figures 5.3 and 5.4 illustrate the annual number of companies grew year-on-year in the LCEGS sector for the UK and generally for London too, apart from the dip in number of companies located in London in 2009/10 and the reduction in numbers in 2020/21. The reason for the dip in number of companies in London in 2009/10 and the difference in the overall growth rate of the number of companies in London compared to the UK is predominately due to the gradual movement of head offices out of London. In many cases the address of the head office of the company may remain the same but the operations themselves and in turn the bulk of the business has been moved out of London due to the higher cost of operations in the city. An example of this trend can be seen in the financial sector, where many companies were relocating their operations to Swindon. During the peak of the pandemic in the year between 2019/20 and 2020/21, the number of companies in the London market contracted by -4% and the UK market contracted by -12% and this illustrates the resilience within the company base in London. The London company base grew by 20% and the UK by 18% between 2022/23 and 2024/25. Overall, the London company base has grown 121%, and the UK has grown 151% between 2007/08 and 2024/25.

Figure 5.5: LCEGS London – Total Number of Employees

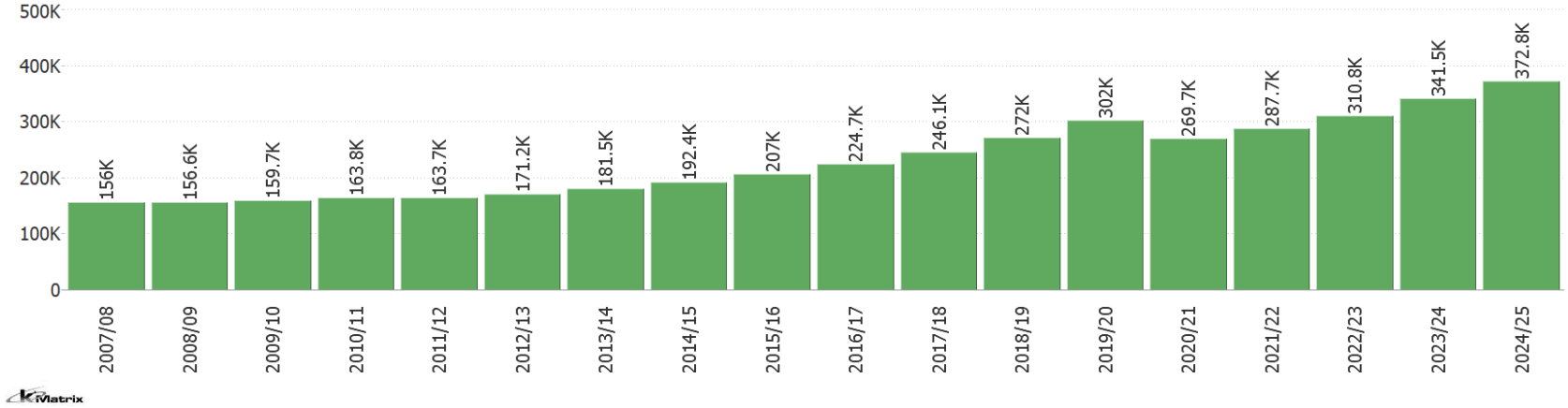
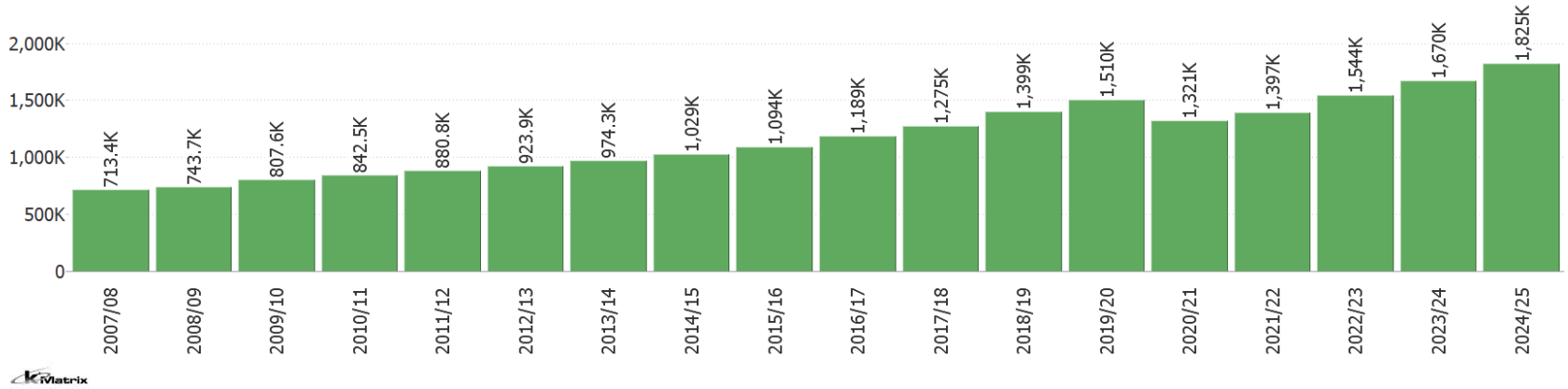


Figure 5.6: LCEGS UK – Total Number of Employees



Figures 5.5 and 5.6 illustrate the annual number of employees grew year-on-year within the LCEGS sector for both the UK and London. The UK saw a consistent increase in the number of employees year on year, however London saw a similar but slower increase in the number of employees that was also attributed, as with the companies above, to the movement of head offices out of London. During the peak of the pandemic in the year between 2019/20 and 2020/21 the number of employees in the London market contracted by -10.7% and the UK market by -12.5%. London employment grew by 20% and the UK by 18% between 2022/23 and 2024/25. Overall, the London employee base has grown 139%, and the UK has grown 156% between 2007/08 and 2023/24.

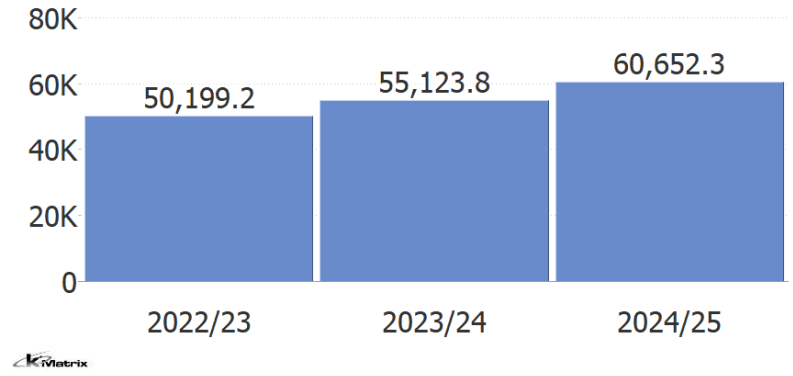
5. 2 London's Low Carbon and Environmental Goods and Services (LCEGS) Sector Analysis

This section of the report analyses London's LCEGS at Level 1 and Level 2.

5.2.1 LCEGS Compared by Year

In this section of the report London's LCEGS performance is compared for the last three years for the three key measures of Sales, Employment and Growth.

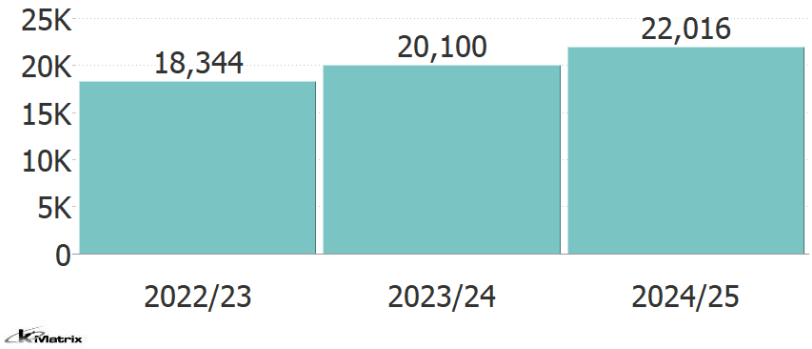
Figure 5.7: Sales 2022/23 to 2024/25 in £m



London's LCEGS sales in 2024/25 were £60.7bn, up from £50.2bn in 2022/23 and £45.8bn in 2021/22, see previous report.

Annual sales growth in London's LCEGS sector was 9.8% from 2022/23 to 2023/24, and 10.0% from 2023/24 to 2024/25. In comparison UK sales growth in LCEGS was 8.9% and 9.9, respectively.

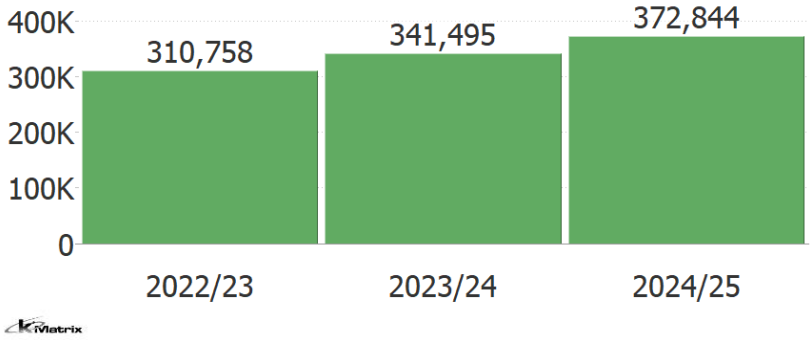
Figure 5.8: Companies 2022/23 to 2024/25



London's LCEGS company count in 2024/25 was 22,016 up from 18,344 in 2022/23 and 17,520 in 2021/22, see previous report.

Annual company growth in London's LCEGS sector was 9.6% from 2022/23 to 2023/24, and 9.5% from 2023/24 to 2024/25. In comparison UK company growth in LCEGS was 8.3%, and 9.2%, respectively.

Figure 5.9: Employment 2022/23 to 2024/25



London's LCEGS employment in 2024/25 was 372,844, up from 310,758 in 2022/23 and 287,709 in 2021/22 see previous report.

Annual employment growth in London's LCEGS was 9.9% from 2022/23 to 2023/24, and 9.2% from 2023/24 to 2024/25. In comparison UK employment growth in LCEGS 8.2% and 9.3% respectively.

5.2.2 LCEGS at Level 1

The analysis in this section of the report focuses on the Level 1 split of LCEGS in London for each of the last three years.

Table 5.1: Sales, Companies and Employees 2022/23 to 2024/25 (Level 1)

Fiscal Year	Sector and Level 1 sub-sector	Sales	# Companies	# Employees
2024/25	**LCEGS Sector**	**£60,652.3**	**22,016**	**372,844**
	Low Carbon	£37,021.1	13,304	210,539
	Renewable Energy	£18,111.9	6,232	119,622
	Environmental	£5,519.2	2,480	42,684
2023/24	**LCEGS Sector**	**£55,123.8**	**20,100**	**341,495**
	Low Carbon	£33,184.2	11,991	190,471
	Renewable Energy	£16,629.3	5,723	109,925
	Environmental	£5,310.4	2,385	41,099
2022/23	**LCEGS Sector**	**£50,199.2**	**18,344**	**310,758**
	Low Carbon	£29,967.9	10,841	171,116
	Renewable Energy	£15,135.3	5,213	100,171
	Environmental	£5,096.1	2,289	39,470

Table 5.1 shows the three-year LCEGS sales, company and employment split by Level 1. Low Carbon is the largest sub-sector, followed by Renewable Energy, with Environmental being the smallest sub-sector.

Table 5.2: Proportions for Sales, Companies and Employees 2022/23 and 2024/25 (Level 1)

Fiscal Year	Level 1 sub-sector	Sales	Companies	Employees
2024/25	Low Carbon	61%	60%	56%
	Renewable Energy	30%	28%	32%
	Environmental	9%	11%	11%
2022/23	Low Carbon	60%	59%	55%
	Renewable Energy	30%	28%	32%
	Environmental	10%	12%	13%

Table 5.2 shows the proportions of the Level 1 sub-sectors have not changed significantly between 2022/23 and 2024/25.

This compares with the UK LCEGS sales split in 2024/25 - Low Carbon 50%, Renewable Energy 37% and Environmental 13%.

Table 5.3: London and UK Total GDP Compared to LCEGS Sales 2023/24

Level 1 Sub-sector	London's LCEGS Sales 2023/24	LCEGS as a % of London's Total GDP	UK Sales 2023/24	LCEGS as a % of UK's Total GDP
Low Carbon	£33,184.2m	5.37%	£128,499.2m	4.78%
Renewable Energy	£16,629.2m	2.69%	£94,587.0m	3.52%
Environmental	£5,310.4m	0.86%	£34,494.8m	1.28%
Sector Total	**£55,123.8m**	**8.92%**	**£257,581.0m**	**9.58%**

London's 2023/24 Total Gross Domestic Product was £617,916m and the UK's Total Gross Domestic Product was £2,689,853m. London's total GPD and UK's Total GDP values are from the ONS[13] and 2023/24 sector data was used due to lag in data from the ONS.

Sales have been compared with GDP to give an indication of the scale and significance of the sector relative to the whole local economy. Table 5.3 shows that in 2023/24 London's LCEGS sector contributed a smaller proportion of GDP than the national average, with 8.92% for London compared with 9.58% for the UK.

Within Level 1 sub-sectors, only London's Low Carbon sub-sector contributed a larger proportion of GDP than the national average, with 5.37% for London compared to 4.78% for the UK. Both London's Renewable Energy and Environmental contributed a smaller proportion than the national average, with Renewable Energy contributing 2.69% in London compared to 3.52% for the UK; and Environmental contributing 0.86% in London compared with 1.28% for the UK.

Table 5.4: London and UK Business Base Compared to LCEGS Companies 2024/25

	London's LCEGS Companies 2024/25	LCEGS as a % of London's Total Companies	UK LCEGS Companies 2024/25	LCEGS as a % of the UK's Total Companies
Low Carbon	13,304	2.51%	57,110	2.16%
Renewable Energy	6,232	1.17%	35,522	1.34%
Environmental	2,480	0.47%	14,915	0.56%
Sector Total	**22,016**	**4.15%**	**107,547**	**4.06%**

The total number of enterprises in London in 2024 was 530,815 and the total number of enterprises in the UK in 2024 was 2,645,840. London's economically active people and UK's economically active people values are from Nomis[14].

Table 5.4 shows that in 2024/25 London's LCEGS sector Companies contributed a larger proportion to the number of Total Enterprises than the national average, with 4.15% for London compared with 4.06% for the UK.

[13] https://www.ons.gov.uk/economy/grossdomesticproductgdp/datasets/regionalgrossdomesticproductlocalauthorities

[14] https://www.nomisweb.co.uk/reports/lmp/gor/2013265927/subreports/nrhi_time_series/report.aspx?

Within Level 1 sub-sectors, only London's Low Carbon sub-sector contributed a larger proportion of Companies than the national average, with 2.51% for London compared to 2.16% for the UK. Both London's Renewable Energy and Environmental contributed a smaller proportion than the national average, with Renewable Energy contributing 1.17% in London compared 1.34% for the UK; and Environmental contributing 0.47% in London compared with 0.56% for the UK.

Table 5.5: London and UK Economically Active People Compared to LCEGS Employment 2024/25

	London's LCEGS Employees 2024/25	LCEGS as a % of London's Total Economically Active People	UK LCEGS Employees 2024/25	LCEGS as a % of the UK's Total Economically Active People
Low Carbon	210,539	4.19%	890,675	2.55%
Renewable Energy	119,622	2.38%	661,091	1.90%
Environmental	42,684	0.85%	273,302	0.78%
Sector Total	**372,844**	**7.43%**	**1,825,069**	**5.23%**

The total number of economically active people in London in 2024 was 5,019,000 and the total number of economically active people in the UK in 2024 was 34,872,000. London's economically active people and UK's economically active people values are from Nomis[15].

Table 5.5 shows that in 2024/25 London's LCEGS sector Employment contributed a larger proportion to the number of Economically Active People than the national average, with 7.43% for London compared with 5.23% for the UK.

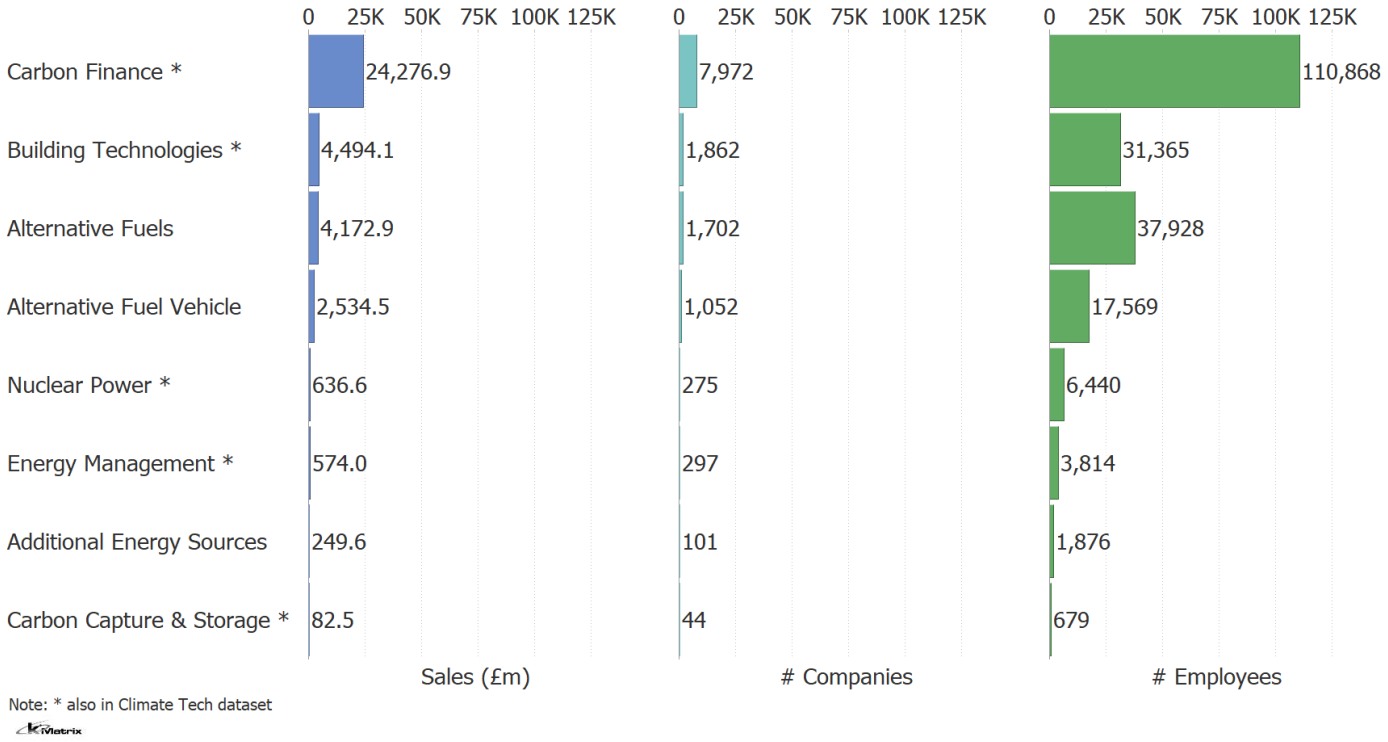
All of London's Level 1 sub-sectors also contributed a larger proportion of Employees to the number of Economically Active People than the national average. The Low Carbon sub-sector contributed 4.19% in London compared with 2.55% for the UK; Renewable Energy contributed 2.38% in London compared to 1.90% for the UK; and Environmental contributed 0.85% in London compared with 0.78% for the UK.

[15] https://www.nomisweb.co.uk/reports/lmp/gor/2013265927/subreports/nrhi_time_series/report.aspx?

5.2.3 LCEGS Level 2 Sub-sectors

In this section we look at the LCEGS sector in greater detail by splitting the market into twenty-four further sub-sectors at Level 2. Level 2 sub-sectors are grouped by their Level 1 sub-sector. Those marked with an * are also within the Climate Tech dataset using the LCEGS definition and reported in Section 1. Note: some variations of those sub-sectors not marked with an * are also found in Climate Tech, but with some alteration, for example Alternative Fuel Vehicle in Climate Tech does not include Hybrid vehicles.

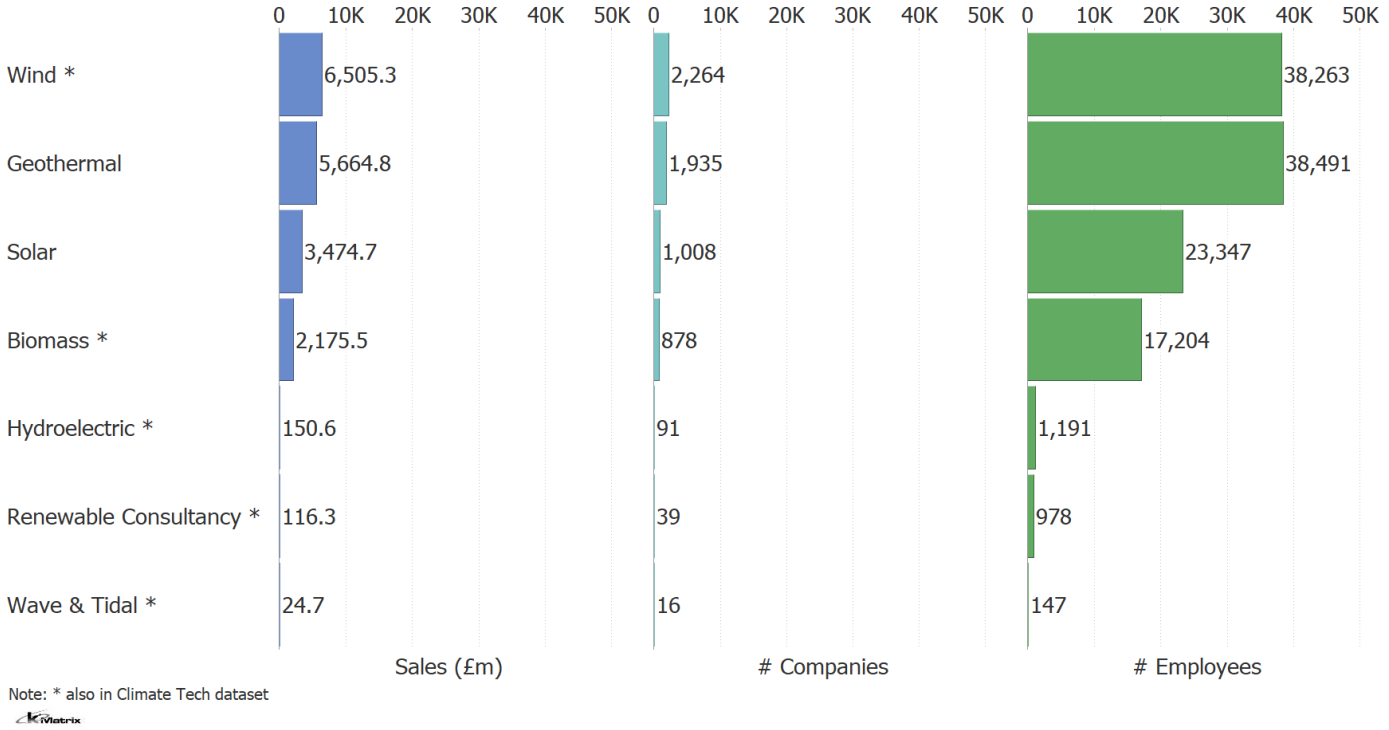
Figure 5.10: Sales in £m, Companies and Employees 2024/25 (Level 2) – Low Carbon



Low Carbon is further sub-divided into eight sub-sectors, of which four account for 96% of sales, 94% of companies and 95% of employment (Figure 5.10). These four are made up of Carbon Finance 65% of sales (63% in 2022/23), Building Technologies 12% (13% in 2022/23), Alternative Fuels 11% (12% in 2022/23) and Alternative Fuel Vehicle 7% (7% in 2022/23).

All four of these sub-sectors grew between 2022/23 and 2024/25: Carbon Finance sales from £19.08bn to £24.28bn; companies from 6,281 to 7,972; and employees from 85,939 to 110,868; Building Technologies sales from £3.77bn to £4.49bn; companies from 1,564 to 1,862; and employees from 26,340 to 31,365; Alternative Fuels sales from £3.55bn to £4.17bn; companies from 1,450 to 1,702; and employees from 32,247 to 37,928; and Alternative Fuel Vehicles sales from £2.18bn to £2.53bn; companies from 903 to 1,052; and employees from 15,095 to 17,569.

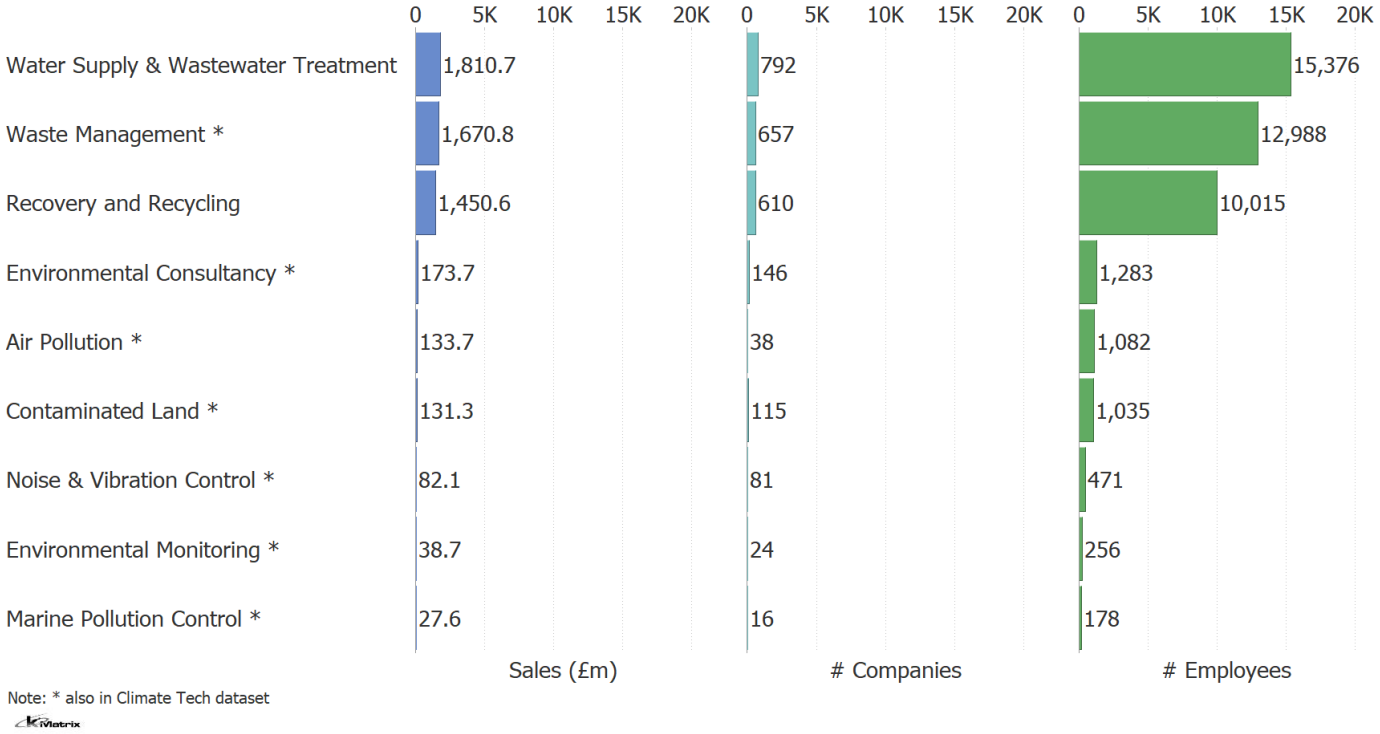
Figure 5.11: Sales in £m, Companies and Employees 2024/25 (Level 2) – Renewable Energy



Renewable Energy is split into seven sub-sectors, of which four account for 98% of sales, 98% of companies and 98% of employment (Figure 5.11.). These four are made up of Wind 36% of Sales (35% in 2022//23), Geothermal 31% (32% in 2022/23), Solar 19% (19% in 2022/23) and Biomass 12% (13% in 2022/23).

All four of these sub-sectors grew between 2022/23 and 2024/25: Wind sales from £5.29bn to £6.51bn; companies from 1,840 to 2,264; and employees from 31,101 to 38,263; Geothermal sales from £4.83bn to £5.66bn; companies from 1,648 to 1,935; and employees from 32,777 to 38,491; Solar sales from £2.88bn to £3.47bn; companies from 836 to 1,008; and employees from 19,365 to 23,347; and Biomass sales from £1.88bn to £2.18bn; companies from 757 to 878; and employees from 14,834 to 17,204;

Figure 5.12: Sales in £m, Companies and Employees 2024/25 (Level 2) – Environmental



Environmental is split into nine sub-sectors, of which three account for 89% of sales, 83% of companies, and 90% of employment (Figure 5.12). These three are made up of Water Supply & Waste Water Treatment 33% (34% in 2022/23), Waste Management 30% (30% in 2022/23) and Recovery & Recycling 26% (26% in 2022/23).

All three of these sub-sectors grew between 2022/23 and 2024/25: Water Supply and Waste Water Treatment sales from £1.72bn to £1.81bn; companies from 751 to 792; and employees from 14,562 to 15,376; Waste Management sales from £1.54bn to

£1.67bn; companies from 604 to 657; and employees from 11,936 to 12,988; and Recovery and Recycling sales from £1.31bn to £1.45bn; companies from 551 to 610; and employees from; 9,044 to 10,015.

Figure 5.13: LCEGS Level 2 Summary for Sales in £m, Companies and Employees 2024/25

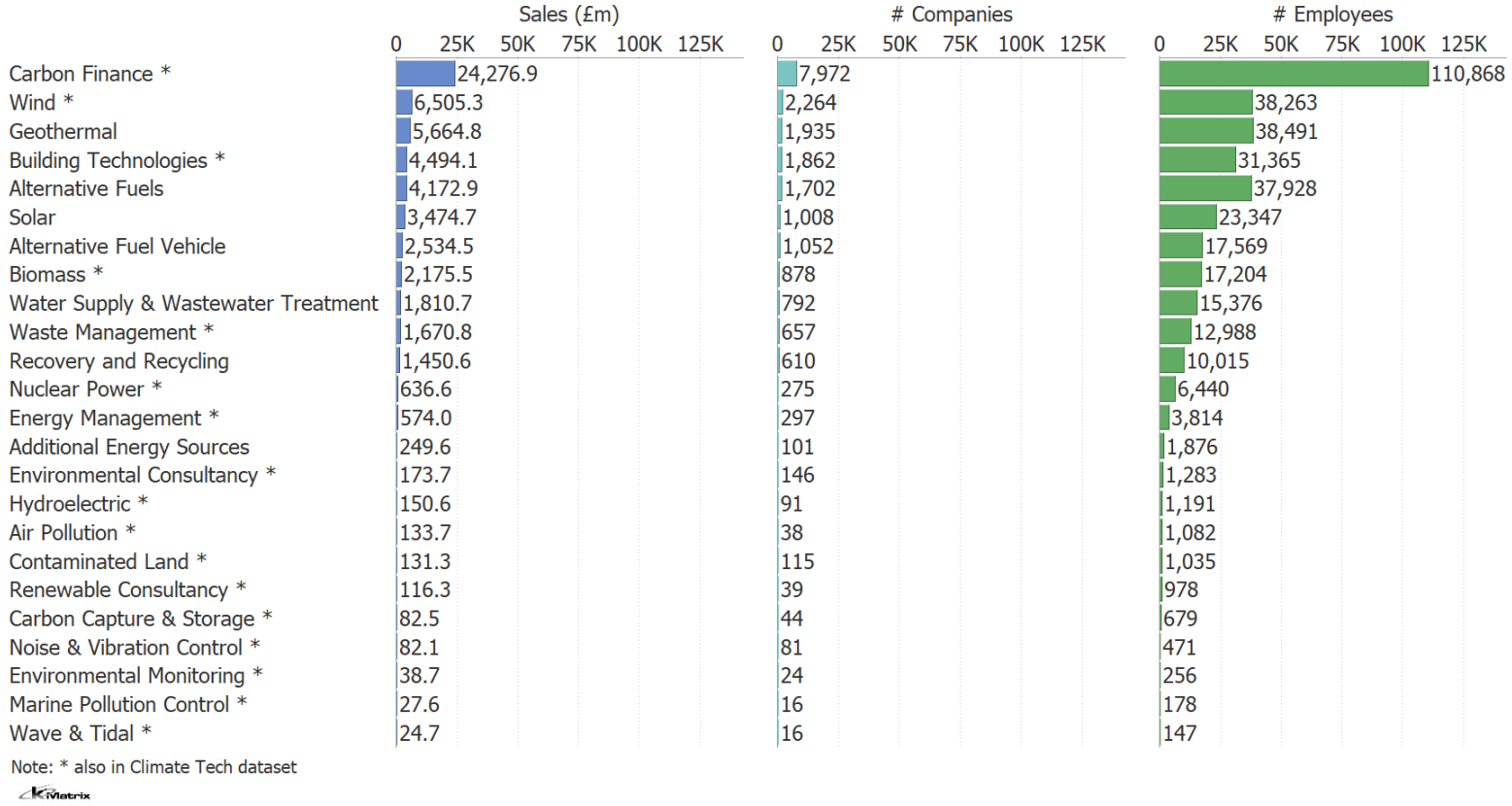


Figure 5.13 compares all 24 sub-sectors of LCEGS and shows that the five leading sub-sectors: Carbon Finance (40%); Wind (11%); Geothermal (9%); Building Technologies (7%); and Alternative Fuels (7%) have the largest share in terms of sales, employment and company numbers and accounted for 74% of London's LCEGS sector activity in 2024/25 (73% in 2022/23).

There is then a second grouping of six sub-sectors that are: Solar 6%, Alternative Fuel Vehicles 4%, Biomass 4%, Water and Waste Water Treatment 3%, Waste Management 3%, and Recovery and Recycling 2%; that make up a further 22% of the LCEGS sector sales in 2024/25 (23% in 2022/23).

These 11 sub-sectors dominate the LCEGS sector sales and made up 96% of its overall sales in 2024/25 (96% in 2022/23).

5.2.4 London's LCEGS Historic Growth

In Section 5.1 annual growth in London's LCEGS sales, employment and companies was compared with growth in the UK's LCEGS sector as a whole for 2022/23 to 2024/25. This section includes summaries of how sub-sector growth in London compares with the UK. A detailed table of Lonon's annual growth by sub-sector is in available in the Companion Dataset.

While annual growth in the LCEGS sector as a whole has varied between 9.2% and 10.0% for each of the three parameters, there is considerable variation in growth between the Level 2 sub-sectors. This reflects London's strengths and its share of these sub-sector markets, all of which are growing at different rates.

The higher growth rates for sub-sectors in London are a reflection of higher growth rates in the UK market and the opportunities that are being created by drivers of growth including policy, regulation and consumer choices. Most sub-sectors in London have growth rates within one percentage point of the UK growth rates. The five main exceptions where London sales growth was stronger than the UK for at least one year are shown in Table 5.6 and are:

- Alternative Fuel Vehicle, where the London sales growth rates were 8.3% between 2022/23 and 2023/24 and 7.5% between 2023/24 and 2024/25 and the UK growth rates were 6.0% between 2022/23 and 2023/24 and 6.7% between 2023/24 and 2024/25
- Alternative Fuels, where the London sales growth rates were 8.8% between 2022/23 and 2023/24 and 8.0% between 2023/24 and 2024/25 and the UK growth rates were 6.7% between 2022/23 and 2023/24 and 7.3% between 2023/24 and 2024/25
- Building Technologies, where the London sales growth rates were 9.6% between 2022/23 and 2023/24 and 8.7% between 2023/24 and 2024/25 and the UK growth rates were 8.0% between 2022/23 and 2023/24 and 9.2% between 2023/24 and 2024/25
- Nuclear Power, where the London sales growth rates were 5.7% between 2022/23 and 2023/24 and 5.2% between 2023/24 and 2024/25 and the UK growth rates were 3.8% between 2022/23 and 2023/24 and 4.1% between 2023/24 and 2024/25

Table 5.6: Sub-sectors where London's LCEGS Sales growth was stronger than the UK for at least one year between 2022/23 to 2024/25

Level 2 sub-sector	London Sales Growth 2022/23 to 2023/24	UK Sales Growth 2022/23 to 2023/24	London Sales Growth 2023/24 to 2024/25	UK Sales Growth 2023/24 to 2024/25
Alternative Fuel Vehicle	8.3%	6.0%	7.5%	6.7%
Alternative Fuels	8.8%	6.7%	8.0%	7.3%
Building Technologies *	9.6%	8.0%	8.7%	9.2%
Nuclear Power *	5.7%	3.8%	5.2%	4.1%

Note: *also in Climate Tech.

The two main exceptions where London growth was weaker than the UK for at least one year are shown in Table 5.7 and are:

- Carbon Finance, where the London sales growth rates were 12.0% between 2022/23 and 2023/24 and 13.6% between 2023/24 and 2024/25 and the UK growth rates were 17.1% between 2022/23 and 2023/24 and 18.5% between 2023/24 and 2024/25
- Biomass, where the London sales growth rates were 8.1% between 2022/23 and 2023/24 and 7.2% between 2023/24 and 2024/25 and the UK growth rates were 11.6% between 2022/23 and 2023/24 and 12.8% between 2023/24 and 2024/25

Table 5.7: Sub-sectors where London's LCEGS Sales growth was weaker than the UK for at least one year between 2022/23 to 2024/25

Level 2 sub-sector	London Sales Growth 2022/23 to 2023/24	UK Sales Growth 2022/23 to 2023/24	London Sales Growth 2023/24 to 2024/25	UK Sales Growth 2023/24 to 2024/25
Carbon Finance *	12.0%	17.1%	13.6%	18.5%
Biomass *	8.1%	11.6%	7.2%	12.8%

Note: *also in Climate Tech.

Growth in London sub-sectors across the 3-year reporting period is generally within two percentage points of growth in the UK. The four exceptions where London growth is more than two percentage points stronger than the UK are shown in Table 5.8 and are:

- Alternative Fuel Vehicle, where the London sales growth rate was 16.4% between 2022/23 and 2024/25 and the UK growth rate was 13.2% between 2022/23 and 2024/25
- Alternative Fuels, where the London sales growth rate was 17.4% between 2022/23 and 2024/25 and the UK growth rate was 14.5% between 2022/23 and 2024/25
- Nuclear Power, where the London sales growth rate was 11.2% between 2022/23 and 2024/25 and the UK growth rate was 8.1% between 2022/23 and 2024/25

Table 5.8: Sub-sectors where London's LCEGS average Sales growth across the 3-year reporting period was stronger than the UK between 2022/23 to 2024/25

Level 2 sub-sector	London Sales Growth 2022/23 to 2024/25	UK Sales Growth 2022/23 to 2024/25
Alternative Fuel Vehicle	16.4%	13.2%
Alternative Fuels	17.4%	14.5%
Nuclear Power *	11.2%	8.1%

Note: *also in Climate Tech.

The two exceptions where London growth is less than two percentage points weaker than the UK are shown in Table 5.9 and are:

- Carbon Finance, where the London sales growth rate was 27.5% between 2022/23 and 2024/25 and the UK growth rate was 38.8% between 2022/23 and 2024/25
- Biomass, where the London sales growth rate was 15.9% between 2022/23 and 2024/25 and the UK growth rate was 25.8% between 2022/23 and 2024/25

Table 5.9: Sub-sectors where London's LCEGS average Sales growth across the 3-year reporting period was weaker than the UK between 2022/23 to 2024/25

Level 2 sub-sector	London Sales Growth 2022/23 to 2024/25	UK Sales Growth 2022/23 to 2024/25
Carbon Finance *	27.2%	38.8%
Biomass *	15.9%	25.8%

Note: *also in Climate Tech.

The highest levels of actual growth in London LCEGS occurred in Carbon Finance (Low Carbon); Wind (Renewable Energy); Renewable Consultancy (Renewable Energy) Photovoltaic (Renewable Energy); Building Technologies (Low Carbon); Wave & Tidal (Renewable Energy); Alternative Fuels (Low Carbon); Geothermal (Renewable Energy); Alternative Fuel Vehicle (Low Carbon); and Biomass (Renewable Energy); between 2021/22 and 2023/24.

5.2.5 London's LCEGS Strengths and Weaknesses

By overlaying the sales for each sub-sector as a proportion of the UK market, the impact of stronger or weaker sales growth can be examined more closely. Figure 5.14 below shows how London compares with the UK for the 24 Level 2 sub-sectors, with regards to size of market and growth across three-years 2022/23 to 2024/25.

The x-axis represents the London/UK sales proportionality factor, which was calculated for each sub-sector by dividing the London sales a percentage of the UK, by 21.4%. This proportionality factor demonstrates where London holds a larger or smaller share of the UK market than would be expected, where:

- 1 = 21.4% of the UK market
- >1 = larger than 21.4% share
- <1 = smaller than 21.4% share

The y-axis represents the growth rate of London's Level 2 sub-sectors compared with the UK. This was calculated by dividing the 3-year growth rate of London by the average UK growth rate. This growth rate factor demonstrates which sub-sectors have a stronger or slower growth rate than the UK, where:

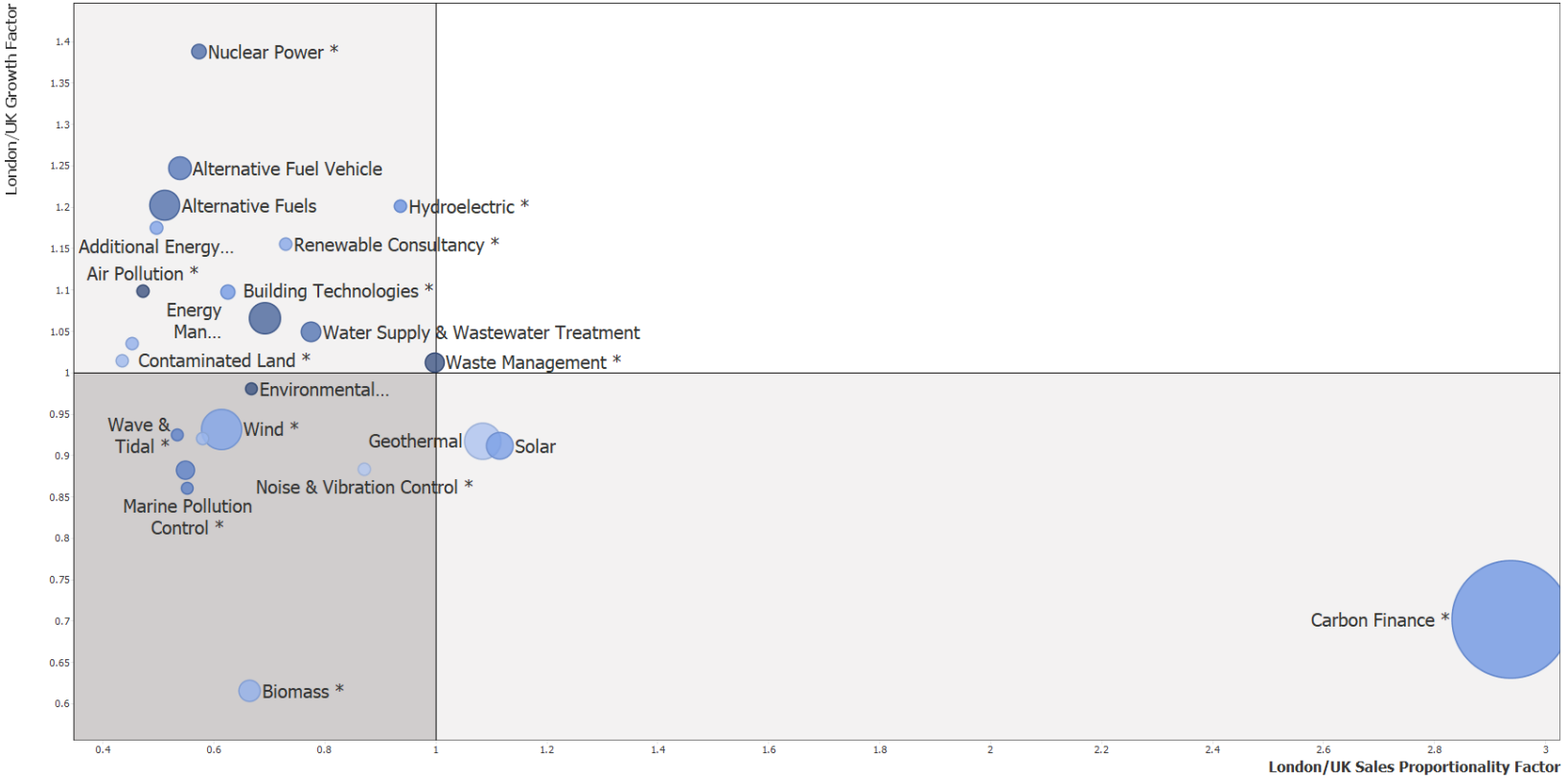
- 1 = the UK growth rate
- >1 = stronger than the UK average growth
- <1 = weaker than UK growth

The graph is split into four quadrants along 1 on each axis, with sub-sectors in each demonstrating:

- Top right = larger market share than expected and stronger growth than the UK average
- Bottom Right = larger market share than expected, but weaker growth than the UK average
- Top left = smaller market share than expected, but stronger growth than the UK average
- Bottom left = smaller market share than expected and weaker growth than the UK average

The bubbles represent the 24 Level 2 sub-sectors and are sized by 2023/24 sales £m, illustrating their relative sizes.

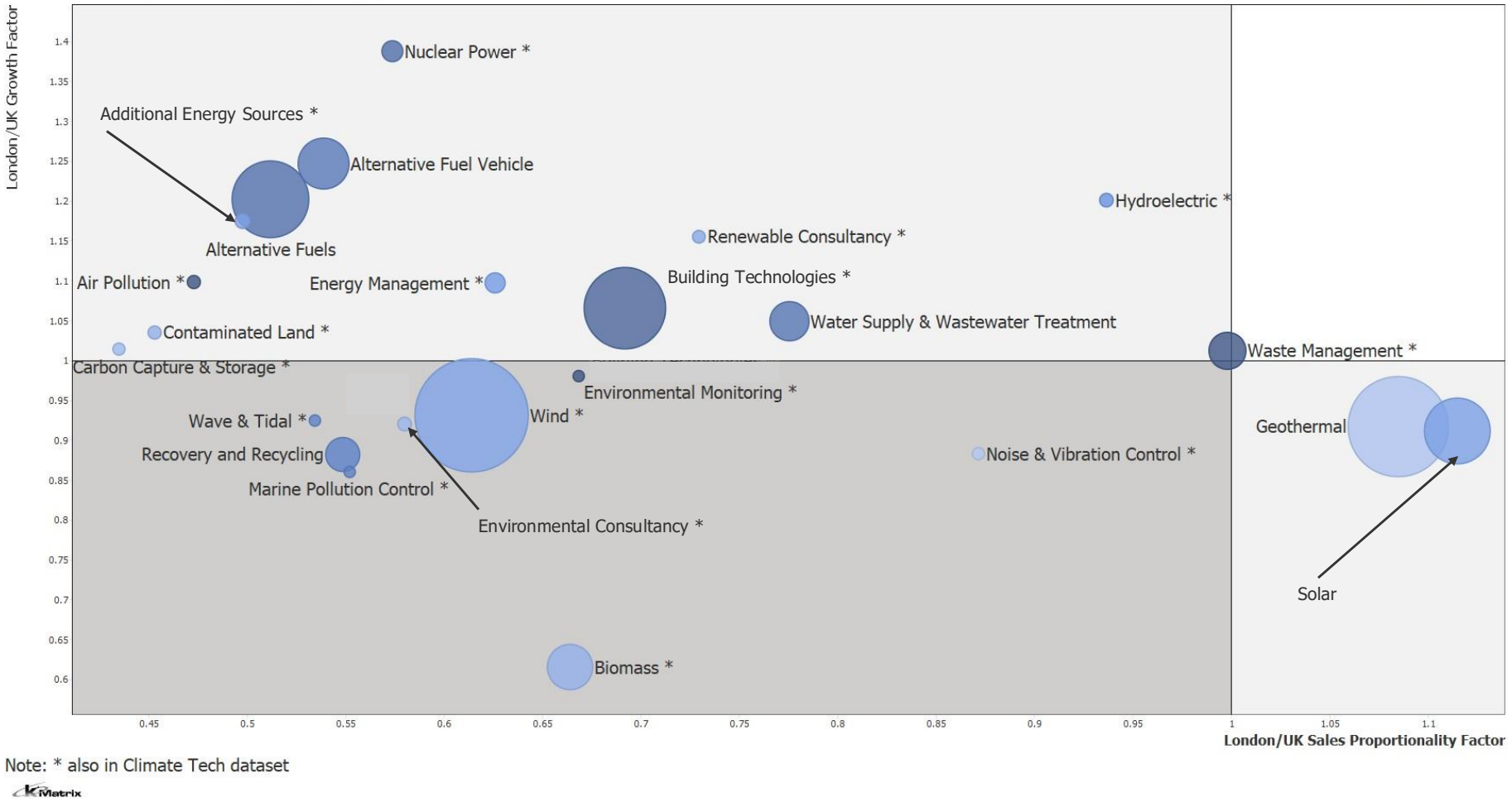
Figure 5.14: London/UK Sales proportionality factor vs. London/UK Growth factor of Level 2 Sub-sectors – Bubbles Sized by Sales £m



Note: * also in Climate Tech dataset

Figure 5.14 clearly illustrates the strong growth of Nuclear which grew by 11.2% compared with the UK growth of 8.1%. Carbon Finance dominates the graph, with a larger proportion of the UK, with 63% of the UK market (92% in 2019/20), compared with an LCEGS average proportion of 21.4%, but weaker growth of 27.2% compared with a UK average for Carbon Finance of 38.8%. Figure 5.15 excludes Carbon Finance from the proportionality factor to enable analysis of the other sectors. Hard to read labels are clear in the next figure.

Figure 5.15: London/UK Sales proportionality factor (Excl. Carbon Finance) vs London/UK Growth factor of Level 2 Sub-sectors, Bubbles Sized by Sales £m



When Carbon Finance is excluded, Waste Management in in the centre of the quadrants, with similar growth to the UK (London 8.8% vs UK 8.7%), Hydroelectric has a smaller market share of the UK market than the sector average, but stronger growth (London 11.3% vs UK 9.4%), Alternative Fuel Vehicle (AFV) and Alternative Fuels (AF) both have a smaller market share of the UK

market than the sector average, but strong growth (AFV 16.4% vs. 13.2%; AV 17.4% vs. 14.5%), Nuclear Power has a smaller market share of the UK market than the sector average, but also strong growth.

Some of London's largest sub-sectors, whilst having a larger share of the UK market than would be expected, only experienced a growth rate that is similar or a little slower than the UK average. For example, Geothermal has a larger share of the UK market (23.2%), with slightly weaker growth (17.4% vs 18.9%); and Solar has a larger share (23.9%) and slightly weaker growth (20.5% vs 22.5%).

5.2.6 London's LCEGS Forecast Growth

Table 5.10 shows sales growth forecasts (annual percentage growth from the previous year) for 2025/26 through to 2029/30. The growth rates refer to the growth expected during the financial year listed. Forecast growth for the majority of sub-sectors is generally consistent with levels of historical growth, but as forecasts stretch out beyond 2029/30, they inevitably tend to be less robust. The growth rates would be applied to the year indicated, so for example, the 2025/26 growth rate indicates the expected growth between the 2024/25 and 2025/26 sales figures.

Table 5.10: London's Climate Tech Forecast Sales (£m) and Growth 2025/26 to 2029/30

L 1	Level 2	Sales £m 2024/25	Forecast growth %	Forecast Sales £m 2025/26	Forecast growth %	Forecast Sales £m 2026/27	Forecast growth %	Forecast Sales £m 2027/28	Forecast growth %	Forecast Sales £m 2028/29	Forecast growth %	Forecast Sales £m 2029/30
Environmental	Air Pollution *	133.7	4.1%	139.1	4.4%	145.2	4.7%	152.1	5.1%	159.8	5.5%	168.5
	Contaminated Land *	131.3	5.2%	138.1	5.5%	145.7	5.9%	154.4	6.3%	164.1	6.8%	175.2
	Environmental Consultancy *	173.7	5.5%	183.2	5.9%	193.9	6.3%	206.1	6.7%	219.9	7.2%	235.7
	Environmental Monitoring *	38.7	5.5%	40.8	5.9%	43.2	6.3%	46.0	6.7%	49.0	7.2%	52.6
	Marine Pollution Control *	27.6	5.7%	29.2	6.1%	31.0	6.6%	33.0	7.0%	35.3	7.5%	38.0
	Noise & Vibration Control *	82.1	5.6%	86.7	6.0%	92.0	6.5%	98.0	7.0%	104.8	7.5%	112.7
	Recovery and Recycling	1,450.6	5.7%	1,533.6	6.1%	1,627.8	6.6%	1,735.1	7.1%	1,857.9	7.6%	1,999.2
	Waste Management *	1,670.8	4.7%	1,750.1	5.1%	1,839.1	5.4%	1,939.3	5.8%	2,052.4	6.2%	2,180.7
	Water Supply & Wastewater Treatment	1,810.7	2.9%	1,863.8	3.2%	1,923.0	3.4%	1,988.7	3.7%	2,062.0	4.0%	2,143.6

Low Carbon	Additional Energy Sources	249.6	6.8%	266.7	7.3%	286.1	7.8%	308.5	8.4%	334.4	9.0%	364.5
	Alternative Fuel Vehicle	2,534.5	8.3%	2,744.5	8.8%	2,985.4	9.3%	3,263.7	9.9%	3,587.0	10.6%	3,965.8
	Alternative Fuels	4,172.9	8.9%	4,543.4	9.4%	4,970.6	10.0%	5,466.8	10.6%	6,046.7	11.3%	6,729.7
	Building Technologies *	4,494.1	9.9%	4,940.3	10.6%	5,464.1	11.3%	6,083.6	12.1%	6,821.5	13.0%	7,709.9
	Carbon Capture & Storage *	82.5	5.6%	87.1	6.0%	92.4	6.5%	98.3	6.9%	105.2	7.4%	113.0
	Carbon Finance *	24,276.9	13.4%	27,540.1	13.7%	31,303.3	13.9%	35,654.2	14.1%	40,696.4	14.4%	46,551.8
	Energy Management *	574.0	5.8%	607.4	6.2%	645.1	6.6%	687.6	7.0%	735.9	7.5%	791.1
	Nuclear Power *	636.6	5.9%	674.0	6.3%	716.3	6.7%	764.4	7.2%	819.1	7.7%	882.0
Renewable Energy	Biomass *	2,175.5	8.2%	2,354.3	8.8%	2,560.5	9.3%	2,799.9	10.0%	3,080.1	10.7%	3,410.3
	Geothermal	5,664.8	9.0%	6,171.9	9.5%	6,759.3	10.1%	7,443.8	10.8%	8,248.1	11.6%	9,201.8
	Hydroelectric *	150.6	5.9%	159.5	6.3%	169.6	6.8%	181.1	7.3%	194.3	7.8%	209.5
	Renewable Consultancy *	116.3	4.6%	121.7	4.9%	127.7	5.3%	134.5	5.7%	142.1	6.1%	150.7
	Solar	3,474.7	10.6%	3,844.5	11.3%	4,280.1	12.1%	4,797.4	12.9%	5,416.5	13.8%	6,166.0
	Wave & Tidal *	24.7	9.6%	27.0	10.3%	29.8	11.0%	33.1	11.8%	37.0	12.7%	41.7
	Wind *	6,505.3	11.8%	7,271.7	12.6%	8,186.1	13.5%	9,288.8	14.4%	10,628.7	15.5%	12,274.3
	Total	**60,652.3**	**10.7%**	**67,118.9**	**11.2%**	**74,617.5**	**11.7%**	**83,358.3**	**12.3%**	**93,598.4**	**12.9%**	**105,668.4**

Note: *also in Climate Tech. Growth is between one year and the next

Table 5.10 show year-on-year growth is expected for all Level 2 sub-sectors, with sector sales forecast to increase from £60.7bn in 2024/25 to £105.7bn in 2029/30.

Figure 5.16 shows the annual forecast growth for London's Climate Adaptation to 2025/26-2029/30 based upon the values in Table 5.10, which includes the forecast for Carbon Finance. The growth rates refer to the growth expected during the financial year listed.

Figure 5.16: London's LCEGS Forecast Sales Growth 2024/25-2025/26 to 2028/29-2029/30 (including Carbon Finance)

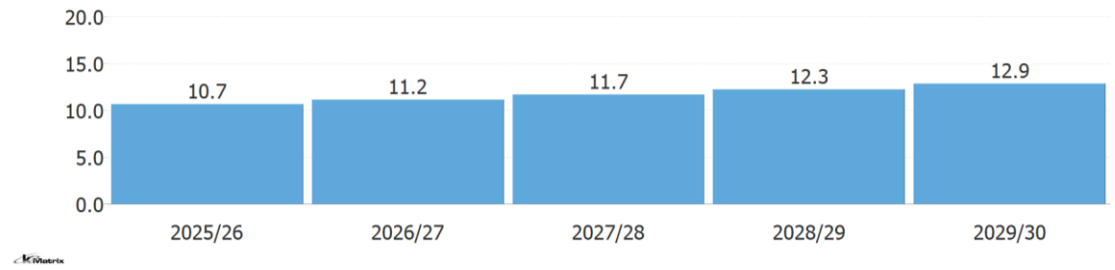
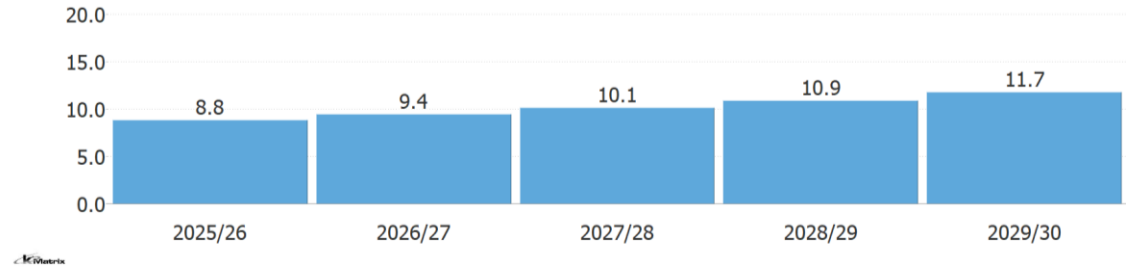


Figure 5.16 shows forecast growth for London's LCEGS if Carbon Finance is excluded from the predictions.

Figure 5.17: London's LCEGS Forecast Sales Growth 2024/25-2025/26 to 2028/29-2029/30 (excluding Carbon Finance)



Figures for 2019/20 indicated that Carbon Finance did not impact significantly on expected growth rates, however Figures 5.16 and 5.17 illustrate this has changed, with a 1.2 to 1.9 percentage point decrease in growth rates when Carbon Finance is excluded (1.5 to 2.1 percentage points in 2022/23).

Table 5.10 indicates that the growth rates for Carbon Finance are expected to be strong, but that the growth rates for other sub-sectors such as Photovoltaic, Wind, Building Technologies, Geothermal and Wave and Tidal are also expected to be strong. Despite this, Carbon Finance appears to be more dominant in terms of growth, with historic deviation of London's growth forecasts from those of the UK (both including and excluding carbon finance) more prominent. London has become less dependent on Carbon Finance, which helped drive the sector coming out of the pandemic, however removing the sub-sector from growth rates had less impact than in 2022/23. Whether this trend continues and London becomes even less reliant on Carbon Finance, in line with pre-pandemic trends is unknown at present.

Figure 5.18: UK's LCEGS Forecast Sales Growth 2024/25-2025/26 to 2028/29-2029/30

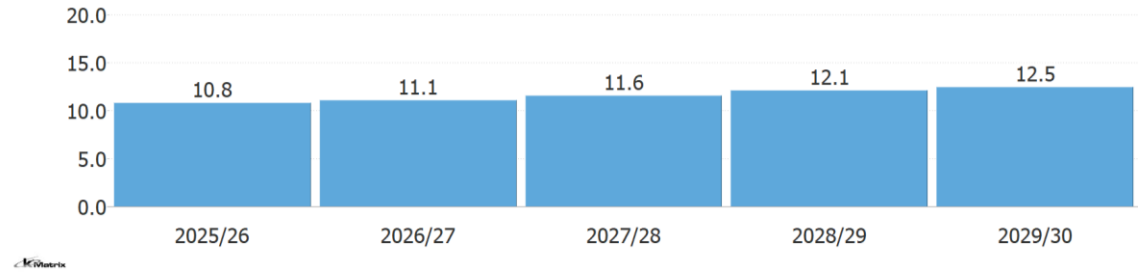


Figure 5.18 shows the annual growth forecast for the UK's LCEGS from 2025/26-2029/30 and illustrates that the forecast growth for the UK is expected to be stronger than London for 2025/26, and then slower than for London from 2026/27 through to the 2029/30.

Figure 5.19: London's and UK's LCEGS year-on-year Sales Growth 2007/08-2008/09 to 2023/24-2024/25 and Forecast Sales Growth 2024/25-2025/26 to 2028/29-2029/30

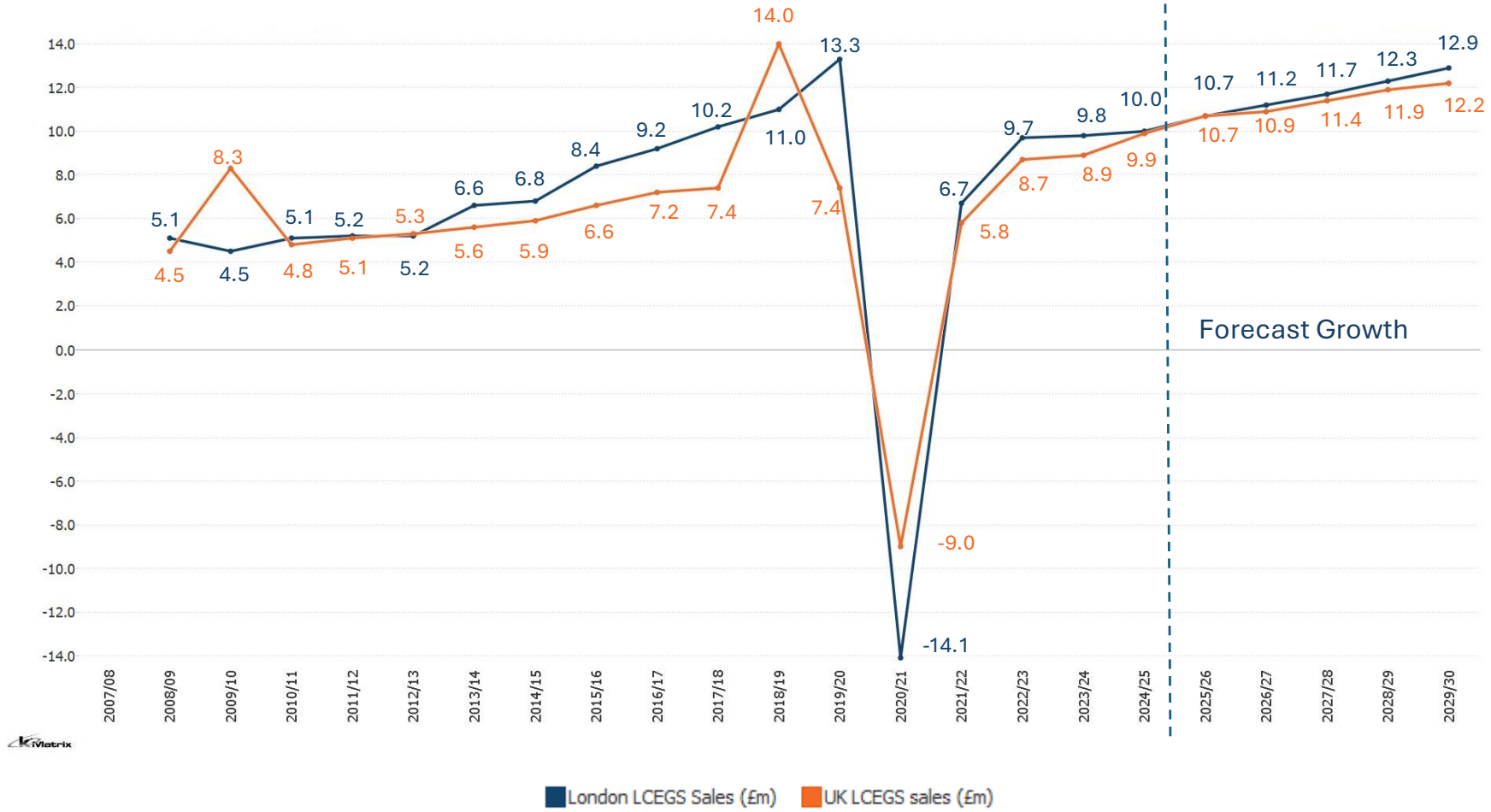
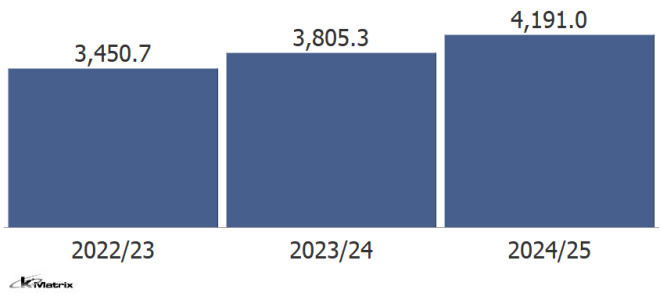


Figure 5.19 shows the timeline for year-on-year growth for the UK and London Sales for LCEGS from 2007/08 to 2023/24-2024/25, combined with forecast growth to 2028/29-2029/30. London has generally seen stronger growth than the rest of the UK between 2007/08 to 2023/24, had a larger contraction in 2020/21 than the UK average due to the pandemic and is expected to be similar to the UK for 2025/26, but is expected to have stronger growth than the UK average from 2026/27 to 2029/30.

5.2.7 London's LCEGS Exports

This section of the report addresses London's LCEGS Exports over the past two years when compared with UK totals and then identifies leading LCEGS export products and services.

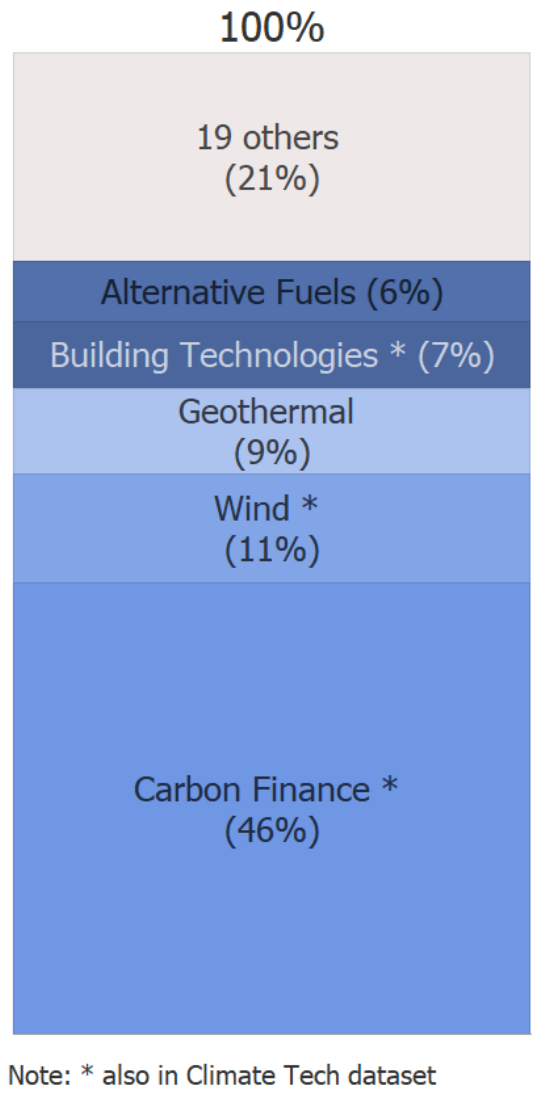
Figure 5.20: London's LCEGS Exports (£m) 2022/23 to 2024/25



The value of London's LCEGS Exports was £4.2bn in 2024/25, up from £3.5bn in 2022/23.

Growth was 10.3% from 2022/23 to 2023/24 and 10.1% from 2023/24 to 2024/25. This is compared to UK growth of approximately 10.4% and 7.2%, respectively.

Figure 5.21: London's Exports (%) by Sub-Sector 2024/25



Note: * also in Climate Tech dataset

London represented 21% of all UK LCEGS exports in 2024/25 (21% in 2023/24, up from 18% in 2011/12). It is in line with London's 21% of overall UK Sales for that year. Although historically London's companies have had a slightly smaller share of the export market than the UK market, they now hold a share of the export market in line with sales.

Figure 5.21 shows the proportion of London LCEGS exports by Level 2 sub-sector for 2024/25, with Carbon Finance 46% (44% in 2022/23); Wind 11%; Geothermal 9%; Building Technologies 7%; and Alternative Fuels 6% being the leading sub-sectors and accounting for 79% of all London LCEGS exports (77% in 2022/23).

Figure 5.21 illustrates how Carbon Finance exports continue to grow, when compared with previous reports. In 2015/16 Carbon Finance was not in the top 5 sub-sectors but by 2017/18 it held 35% of the export market, in 2019/20 it held 40%, in 2020/21 it held 42% and in 2023/24 it held 44%.

The large increase in exports in Carbon Finance is due to a significant increase in the number of financial institutions that are dealing with Carbon Finance in export markets, with further increases in the consulting arena.

In Table 5.11 London's LCEGS exports are shown by sub-sector for each of the three years of the report and have been expressed as a percentage of that sub-sector's overall Sales

Table 5.11: London's LCEGS Exports as a % of Sales 2022/23 to 2024/25

		2022/23			2023/24			2024/25		
Level 1	**Level 2**	**Sales £m**	**Exports £m**	**Exports as a % of Sales**	**Sales £m**	**Exports £m**	**Exports as a % of Sales**	**Sales £m**	**Exports £m**	**Exports as a % of Sales**
Environmental	Air Pollution *	124.2	6.3	5.1%	129.0	6.5	5.1%	133.7	6.8	5.1%
	Contaminated Land *	119.7	6.6	5.5%	125.5	6.9	5.5%	131.3	7.2	5.5%
	Environmental Consultancy *	157.2	8.8	5.6%	165.5	9.3	5.6%	173.7	9.7	5.6%
	Environmental Monitoring *	35.1	1.9	5.5%	36.9	2.0	5.5%	38.7	2.1	5.5%
	Marine Pollution Control *	24.9	1.4	5.5%	26.2	1.4	5.5%	27.6	1.5	5.5%
	Noise & Vibration Control *	74.2	4.5	6.1%	78.3	4.8	6.1%	82.1	5.0	6.1%
	Recovery and Recycling	1,309.8	41.6	3.2%	1,381.2	43.8	3.2%	1,450.6	46.0	3.2%
	Waste Management *	1,535.2	79.4	5.2%	1,603.9	83.0	5.2%	1,670.8	86.4	5.2%
	Water Supply & Wastewater Treatment	1,715.8	84.3	4.9%	1,763.7	86.7	4.9%	1,810.7	89.1	4.9%
Low Carbon	Additional Energy Sources	220.9	12.2	5.5%	235.4	13.0	5.5%	249.6	13.8	5.5%
	Alternative Fuel Vehicle	2,176.5	135.9	6.2%	2,358.0	147.2	6.2%	2,534.5	158.1	6.2%
	Alternative Fuels	3,553.1	217.9	6.1%	3,864.5	237.0	6.1%	4,172.9	255.8	6.1%
	Building Technologies *	3,774.4	240.6	6.4%	4,135.9	263.7	6.4%	4,494.1	286.6	6.4%
	Carbon Capture & Storage *	74.7	4.3	5.7%	78.6	4.5	5.7%	82.5	4.7	5.7%
	Carbon Finance *	19,079.3	1,523.0	8.0%	21,361.3	1,708.4	8.0%	24,276.9	1,927.0	7.9%
	Energy Management *	516.4	28.5	5.5%	545.4	30.1	5.5%	574.0	31.7	5.5%

	Nuclear Power *	572.6	32.8	5.7%	605.0	34.7	5.7%	636.6	36.5	5.7%
Renewable Energy	Biomass *	1,876.8	124.3	6.6%	2,029.5	134.4	6.6%	2,175.5	144.1	6.6%
	Geothermal	4,826.5	311.4	6.5%	5,247.3	338.6	6.5%	5,664.8	365.6	6.5%
	Hydroelectric *	135.3	7.4	5.5%	143.1	7.8	5.5%	150.6	8.3	5.5%
	Renewable Consultancy *	107.0	5.9	5.5%	111.7	6.2	5.5%	116.3	6.5	5.5%
	Solar	2,882.7	192.2	6.7%	3,178.4	211.9	6.7%	3,474.7	231.7	6.7%
	Wave & Tidal *	20.9	1.4	6.8%	22.8	1.6	6.8%	24.7	1.7	6.8%
	Wind *	5,286.2	378.0	7.2%	5,896.5	421.7	7.2%	6,505.3	465.1	7.1%
Total		**50,199.2**	**3,450.7**	**6.9%**	**55,123.8**	**3,805.3**	**6.9%**	**60,652.3**	**4,191.0**	**6.9%**

Note: *also in Climate Tech.

Table 5.11 shows the average for 2024/25 is 6.9%, with generally less than 2 percentage point variation between sub-sectors, which is consistent with 2018/19 and indicates a stable and established export market.

5.3 London's LCEGS Compared with the Rest of the UK's Regions

5.3.1 London's LCEGS Compared with the UK

Figure 5.22: London and the UK 2024/25 LCEGS Sales by Level 1

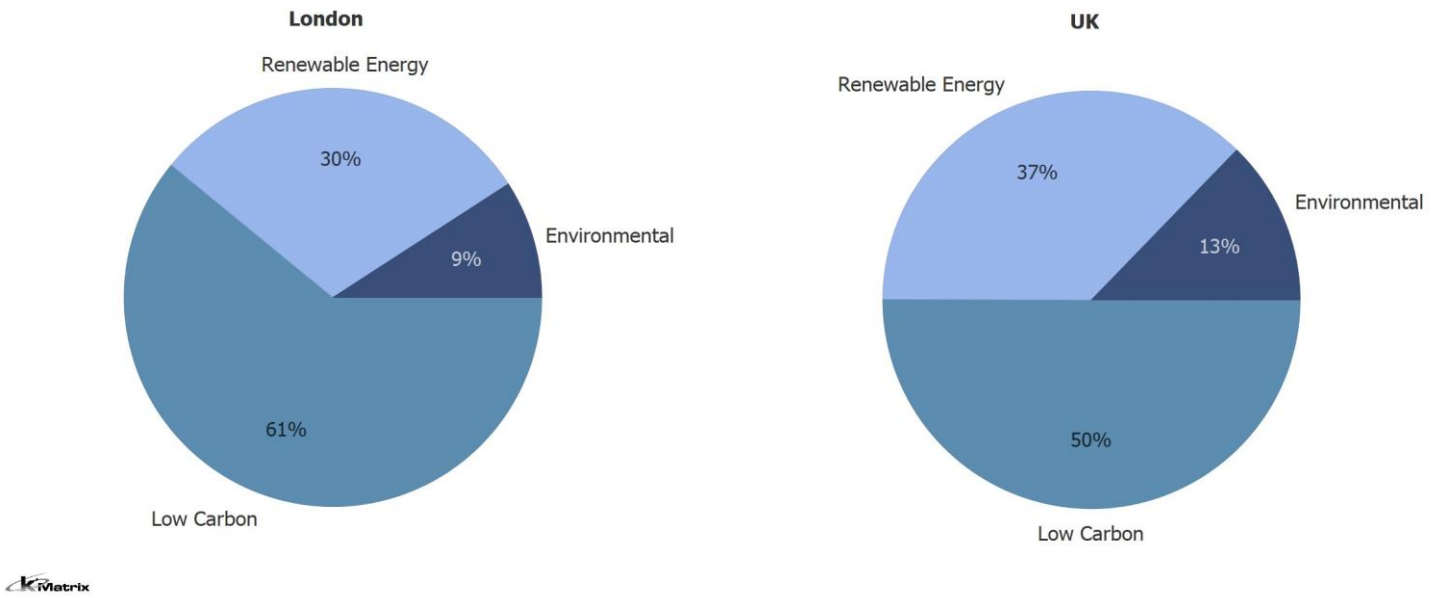


Figure 5.22 compares the profile of London and UK's LCEGS activities at Level 1 for sales, and shows London's Low Carbon market is more dominant than the wider UK with 61% compared with 50% for the UK.

Figure 5.23: London and the UK 2024/25 LCEGS sub-sector Sales by Level 2

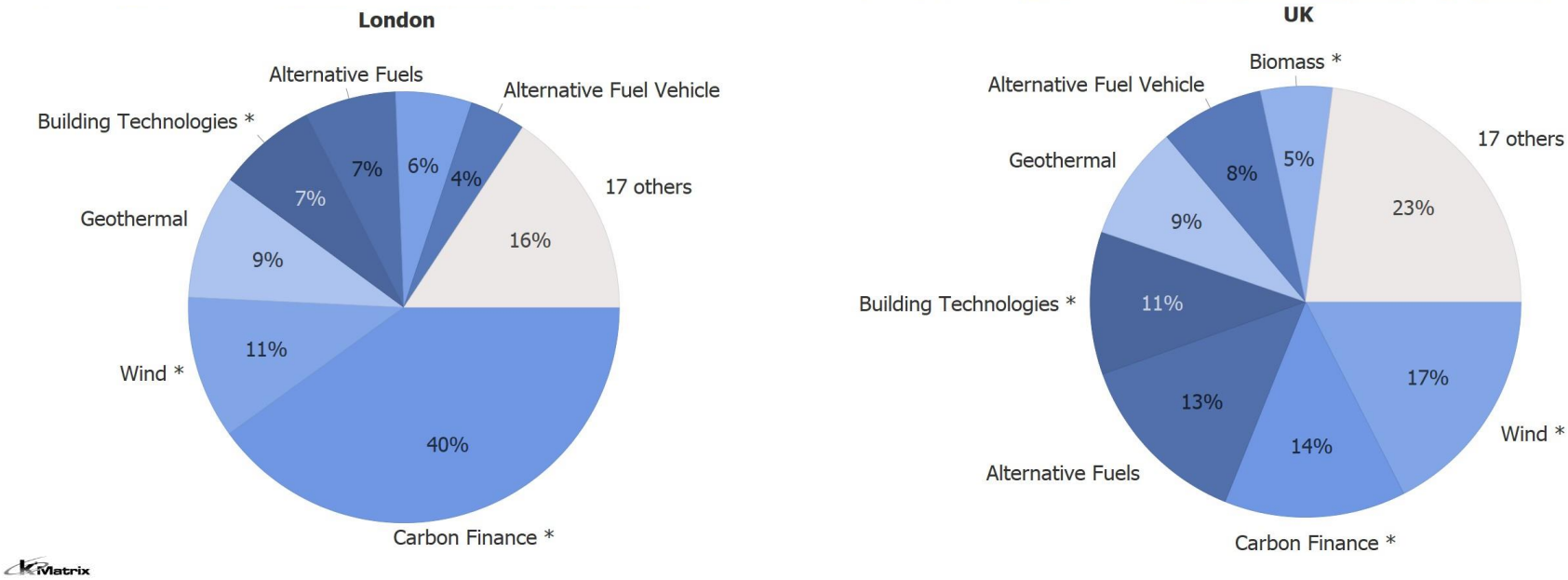


Figure 5.23 extends the analysis by comparing the profile of London and UK's LCEGS activities at Level 2 for sales. There are significant differences between the two that gives London a distinctive LCEGS profile compared to the overall UK profile.

These differences are mainly accounted for by the fact that Carbon Finance is London's largest LCEGS sub-sector and a function of the financial services sector in the City and Canary Wharf and shows less activity outside of London. Other regional strengths include Building Technologies in the South East Region and Alternative Fuels and Alternative Fuel Vehicles in the East of England, West Midlands and the North West.

Figure 5.24: UK Regional Sales, Employment and Companies 2024/25 as % of UK

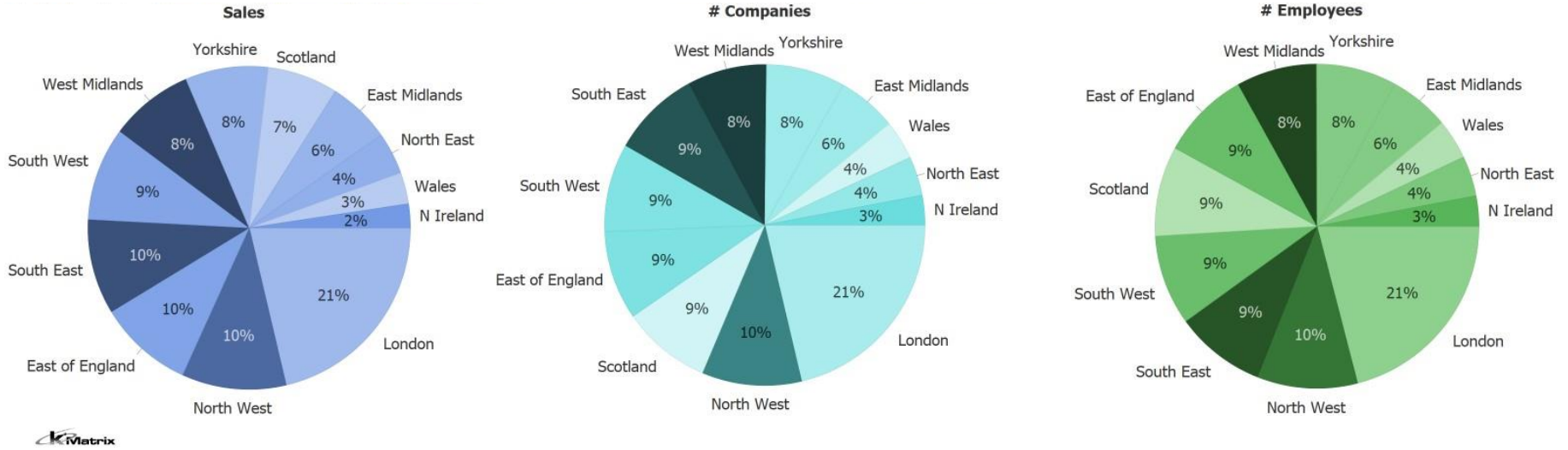


Figure 5.24 compares the "old" UK regions and the Devolved Administrations (for consistency with previous reporting) for sales, companies and employment.

London accounts for (22% of sales, 19% of companies and 19% of employment when last compared in 2019/20). If Carbon Finance is removed, this changes to 15% of sales, 15% of companies and 16% of employment.

The next largest regions for LCEGS Sales are the North West, East of England and South East (these have been largest regions since 2014/15). These same regions are within the top five after London for both number of companies and number of employees.

Figure 5.25: Sales 2024/25 London as % of UK at Level 2

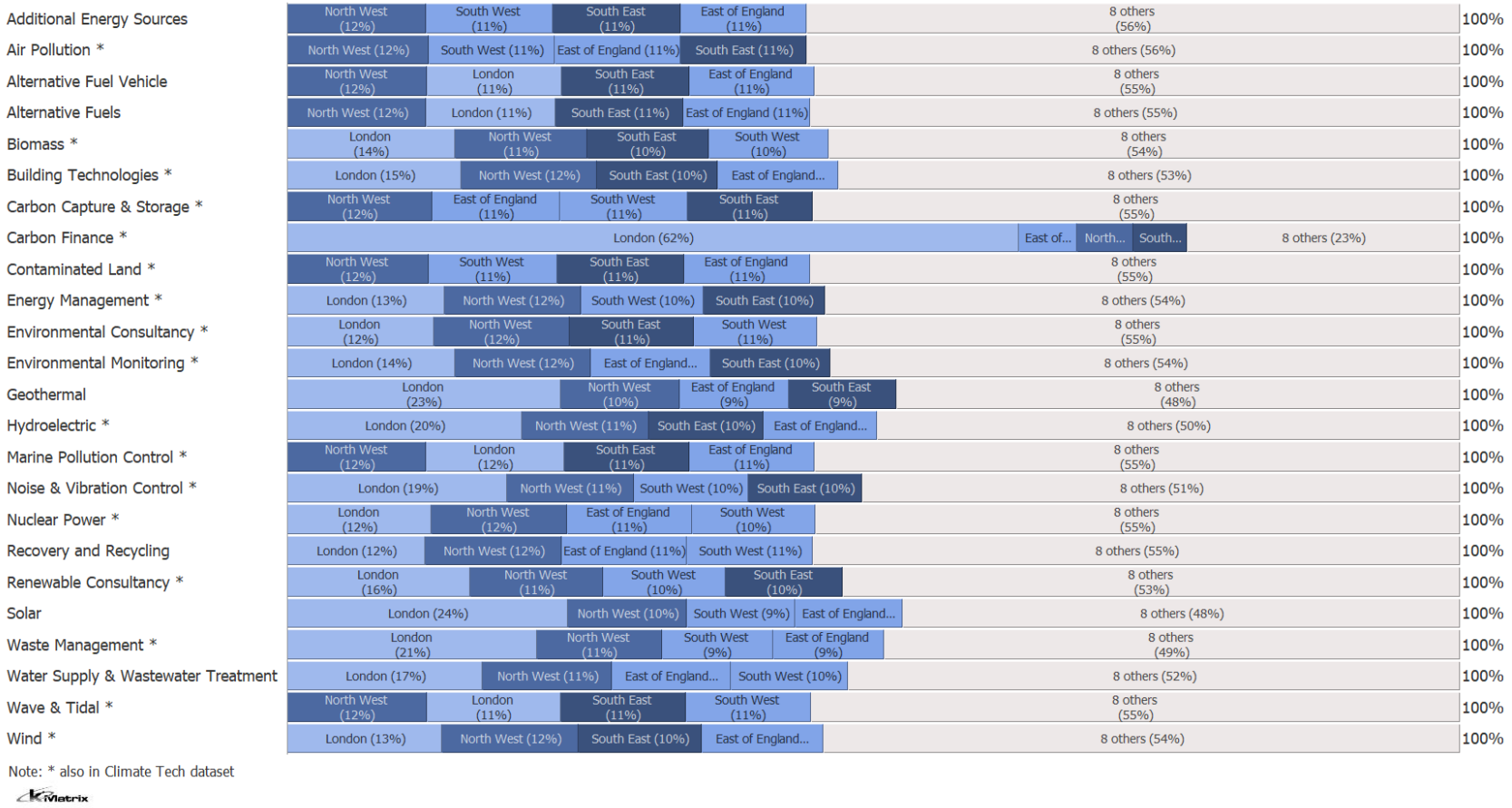


Figure 5.25 then compares the same regions again for 2024/25, but this time by all the Level 2 sub-sectors. This graphic shows how London's 21% of UK Sales is made up from a range of contributions, from Carbon Finance at 62% (92% in 2019/20) to Additional Energy Sources (11%), Air Pollution (10%), Carbon Capture and Storage (9%) and Contaminated Land (10%) outside of the top four. The larger the percentage share of a sub-sector in a region, the higher the degree of supply chain localization in that sub-sector, in that region. The higher the degree of localization, the bigger the opportunity for the development of partnerships and regional cooperation.

London has the highest share of the market in 16 sub-sectors: Carbon Finance (62%), Solar (24%), Geothermal (23%), Waste Management (21%), Hydroelectric (20%), Noise and Vibration Control (19%), Water Supply and Wastewater Treatment (17%), Renewable Consultancy (16%), Building Technologies (15%), Biomass (14%), Environmental Monitoring (14%), Wind (13%), Energy Management (13%), Environmental Consultancy (12%), Nuclear (12%) and Recovery & Recycling (12%).

London has the second highest share of the market in 4 sub-sectors: Alternative Fuel Vehicle (11%), Alternative Fuels (11%), Marine Pollution Control (12%) and Wave & Tidal (11%).

5.3.2 London's Impact on Regional LCEGS Chains and Networks of Supply

In this section we analyse the impact of London's LCEGS sector on other regions of the UK.

This is provided as a measure of the sales within the chains and networks of supply of a region, generated by the LCEGS sector in London.

This analysis was performed by tracking sales of activities within London, through the chains and networks of supply, to determine point of origin and subsequent movement of constituent products or services.

Only value-added activities are included, from components to consultancy, R&D to assembly.

A limitation of the analysis is the activities measured are within the chain and network of supply and represent the traded activities within the sector, as such, untraded academic research is not counted.

The Sales numbers for sub-sectors within regions of the UK have been calculated through the same data triangulation process as other metrics within the study, but with additional locational data overlaid, specifically mapping the movement and trade of goods and services across the country.

This analysis included sources within the core source block, with additional accredited research sources augmenting the data triangulation process, and include:

- Data reported by companies
- Public sector sources
- Private sector sources
- Institutional sources
- Industrial and trade sources
- Academic Data sources (sector specific)
- Advertising and HR
- Financial, legal and investment
- Other (unpublished) sources

Table 5.12: 2023/24 Net benefit of London's LCEGS market to the Rest of the UK, through chains and networks of supply, (£m)

Level 1	Level 2	London Total Sales (£m) 2023/24	Supply Chain Outside of London (£m)	Supply Chain as % of London
Environmental	Air Pollution *	133.7	44.4	33.2%
	Contaminated Land *	131.3	21.7	16.5%
	Environmental Consultancy *	173.7	71.4	41.1%
	Environmental Monitoring *	38.7	14.6	37.7%
	Marine Pollution Control *	27.6	4.2	15.1%
	Noise & Vibration Control *	82.1	28.3	34.5%
	Recovery and Recycling	1,450.6	518.5	35.7%
	Waste Management *	1,670.8	173.2	10.4%
	Water & Waste Water Treatment	1,810.7	650.2	35.9%
Low Carbon	Additional Energy Sources	249.6	107.3	43.0%
	Alternative Fuel Vehicle	2,534.5	409.0	16.1%
	Alternative Fuels	4,172.9	1,482.3	35.5%
	Building Technologies *	4,494.1	1,635.8	36.4%
	Carbon Capture & Storage *	82.5	30.5	36.9%
	Carbon Finance *	24,276.9	8,676.8	35.7%
	Energy Management *	574.0	195.2	34.0%
	Nuclear Power *	636.6	155.2	24.4%
Renewable Energy	Biomass *	2,175.5	364.3	16.7%
	Geothermal	5,664.8	1,323.0	23.4%
	Hydroelectric *	150.6	27.5	18.2%
	Photovoltaic	116.3	43.0	37.0%
	Renewable Consultancy *	3,474.7	1,264.2	36.4%
	Wave & Tidal *	24.7	4.7	19.1%
	Wind *	6,505.3	1,065.4	16.4%
Total		**60,652.2**	**18,310.7**	**30.2%**

Note: *also in Climate Tech dataset.

Table 5.12 shows the net benefit of the LCEGS sector in London, to UK chains and networks of supply outside of London.

London's LCEGS sector sales in 2023/24 were £60.7bn and generated a further £18.3bn, or an additional 30.2% in terms of sales within the chains and networks of supply across the UK, outside of London.

The largest sub-sectors in terms of sales in London do not necessarily generate the largest sales outside of London, e.g., Wind is the 2nd largest sub-sector in terms of sales in London, but 6th for the value of sales generated outside of London. Conversely, Building technologies is the 4th largest sub-sector in terms of sales in London, but 2nd for the value of sales generated outside of London.

Sub-sectors in London which generated the highest sales in the chains and networks of supply outside of London were Carbon Finance with £8.7bn (£6.6bn in 2019/20); Building Technologies with £1.6bn (£1.6bn in 2019/20); Alternative Fuels with £1.5bn (£1.3bn in 2019/20); Geothermal with £1.3bn (£0.5bn in 2019/20); Solar with £1.2bn (£1.0bn in 2019/20) and Wind with £1.1bn (£967.6m in 2019/20).

London sub-sectors that generated the largest sales within the chains and network of supply outside of London, as a percentage of additional London sales were Additional Energy Sources with 43.0% (34.4% in 2019/20); Environmental Consultancy with 41.1% (30.7% in 2019/20); Environmental Monitoring with 37.7% (41.4% in 2019/20); and Renewable Consultancy 37.0% (37.0% in 2019/20). Where there are increases in proportion since 2019/20, this is indicative of London's activity in these sectors and the wider country, and the strengthening of the chains and networks of supply across the country in these sub-sectors.

The sub-sectors that created the least additional sales were Waste Management with 10.4% (9.7% in 2019/20); Marine Pollution Control with 15.1% (13.2% in 2019/20) and Alternative Fuel Vehicle with 16.1% (15.1% in 2019/20). The fluctuations from previous reporting are likely to be due to large project completion.

Figure 5.26: Net benefit of London's LCEGS market to UK regions, through chains and networks of supply (£m)

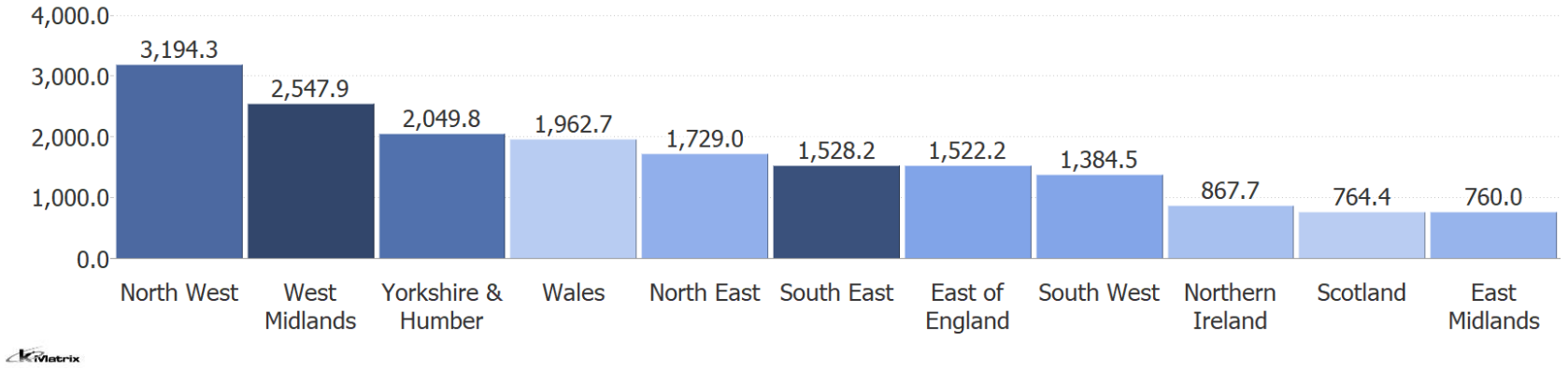


Figure 5.26 shows the net benefit of the LCEGS sector in London, to UK chains and networks of supply outside of London, by region. The greatest beneficiaries of sales generation as a direct result of London activity are:

- The North West with £3.19bn (£2.36bn in 2019/20), or 5.3% of the London total sales (4.7% in 2019/20)
- The West Midlands with £2.55bn (£2.19bn in 2019/20), or 4.2% of the London total sales (4.4% in 2019/20)
- Yorkshire & Humber with £2.05bn (£1.41bn in 2019/20), or 3.4% of the London total sales (2.8% in 2019/20)
- Wales with £2.0bn (£1.67bn in 2019/20), or 3.2% of the London total sales (3.3% in 2019/20)
- The North East with £1.73bn (£1.11bn in 2019/20), or 2.9% of the London total sales (2.2% in 2019/20)
- The rest of the South East with £1.53bn (£1.67bn in 2019/20), or 2.5% of the London total sales (3.3% in 2019/20)

Table 5.13: 2024/25 Net benefit of London's LCEGS market to UK regions, through chains and networks of supply, by sub-sector (£m)

Level 1	Level 2	London Total Sales (£m)	North West Benefit (£m)	North East Benefit (£m)	Yorkshire & Humber Benefit (£m)	West Midlands Benefit (£m)	East Midlands Benefit (£m)	East of England Benefit (£m)	South West Benefit (£m)	South East Benefit (£m)	Wales Benefit (£m)	Scotland Benefit (£m)	Northern Ireland Benefit (£m)
Environmental	Air Pollution *	133.7	5.2	6.2	2.4	5.2	1.2	2.2	4.2	7.3	7.0	1.8	1.6
	Contaminated Land *	131.3	2.6	3.7	1.5	2.7	1.4	2.2	1.1	2.8	2.3	0.6	0.7
	Environmental Consultancy *	173.7	11.7	10.0	7.8	9.0	2.9	3.4	4.5	8.7	5.3	5.0	2.9
	Environmental Monitoring *	38.7	2.7	2.2	1.7	1.8	0.4	1.9	0.8	1.1	0.7	1.0	0.4
	Marine Pollution Control *	27.6	0.5	0.5	0.3	0.4	0.2	0.6	0.4	0.3	0.6	0.1	0.3
	Noise & Vibration Control *	82.1	5.6	5.3	1.8	4.7	0.7	2.1	1.5	2.9	0.2	2.5	1.0
	Recovery and Recycling	1,450.6	42.0	65.4	71.3	60.9	31.2	61.4	44.5	30.7	76.5	19.8	14.9
	Waste Management *	1,670.8	26.2	19.8	16.7	12.1	6.5	8.9	19.2	22.7	21.2	14.1	5.8
	Water Supply & Wastewater Treatment	1,810.7	95.8	43.2	47.9	94.4	44.8	71.4	67.5	46.7	73.2	32.3	33.0
Low Carbon	Additional Energy Sources	249.6	16.4	15.2	7.9	12.5	2.0	8.6	8.9	12.6	11.9	7.1	4.2
	Alternative Fuel Vehicle	2,534.5	91.0	55.8	31.3	57.1	24.0	23.6	33.2	28.5	23.6	23.9	17.1
	Alternative Fuels	4,172.9	229.9	85.0	194.1	262.3	42.2	163.0	147.8	110.2	114.7	54.3	78.9
	Building Technologies *	4,494.1	320.8	110.3	87.7	220.6	48.7	217.2	71.5	185.5	229.6	96.7	47.1
	Carbon Capture & Storage *	82.5	4.7	3.9	2.8	5.4	1.8	3.6	1.9	1.4	1.7	1.6	1.7
	Carbon Finance *	24,276.9	1,710.3	866.0	1,166.3	1,335.6	276.7	384.4	519.9	742.4	982.6	263.5	429.1
	Energy Management *	574.0	27.7	10.7	24.7	28.2	6.2	23.2	13.5	17.8	18.2	14.1	10.8

	Nuclear Power *	636.6	22.1	18.8	11.6	14.2	9.1	26.7	21.8	18.3	1.0	11.4	0.2
Renewable Energy	Biomass *	2,175.5	66.8	29.6	19.1	63.2	17.0	41.9	23.0	31.2	36.6	24.9	11.2
	Geothermal	5,664.8	145.4	95.5	115.7	133.0	72.8	234.6	204.2	64.0	117.1	39.5	101.3
	Hydroelectric *	150.6	5.1	2.2	3.1	3.6	0.6	2.2	1.7	1.8	3.0	1.5	2.5
	Renewable Consultancy *	116.3	8.0	2.5	5.7	5.9	2.8	4.0	1.9	4.8	2.8	2.5	2.0
	Solar	3,474.7	144.2	118.5	170.6	146.7	93.9	119.7	121.9	89.8	119.7	67.3	71.9
	Wave & Tidal *	24.7	0.6	0.7	0.4	0.7	0.1	0.2	0.3	0.4	0.9	0.1	0.3
	Wind *	6,505.3	208.9	158.2	57.3	67.5	72.8	115.0	69.3	96.5	112.3	78.7	28.7
	Total	**60,652.2**	**3,194.3**	**1,729.0**	**2,049.8**	**2,547.9**	**760.0**	**1,522.2**	**1,384.5**	**1,528.2**	**1,962.7**	**764.4**	**867.7**

Note: *also in Climate Tech dataset.

Table 5.13 shows the significant London sub-sectors which generate large sales outside of London include:

- Water and Wastewater Treatment in the North West with £95.8m (5.3%), and the West Midlands with £94.4m (5.2%)
- Alternative Fuel Vehicle in the North West with £91.0m (3.6%), the West Midlands with £57.1m (2.3%) and the North East with £55.8m (2.2%)
- Alternative Fuels in the West Midlands with £262.3m (6.3%), the North West with £229.9m (5.5%), and Yorkshire & Humber with £194.1m (4.7%)
- Carbon Finance in the North West with £1.7bn (7.0%), the West Midlands with £1.3bn (5.5%) and Yorkshire & Humber with £1.2bn (4.8%)
- Building Technologies in the North West with £320.8m (7.1%), Wales with £229.6m (5.1%) and the West Midlands with £220.6m (4.9%)
- Solar in Yorkshire & Humber with £170.6m (4.9%), the West Midlands with £146.7m (4.2%), and the North West with £144.2m (4.1%)
- Wind in the North West with £208.9m (3.2%) and the North East with £158.2m (2.4%)

Part of the benefit in the chains and networks of supply come from investment from London companies made into the chains and networks of supply across the country and into Europe. Another element concerns R&D within universities, where London provides financial and practical support for development within industry, additionally, head office functions also play a role. More specifically, project assembly and coordination of major large projects often occurs in London, with companies drawing from new or established chains and networks of supply from across the country, to supply and fulfil significant contracts. With regards to Carbon Finance, activity in London through the provision of finance directly leads to project delivery within the regions across the UK.

5.4 London's LCEGS by Local Authority

5.4.1 LCEGS by Local Authority

This section of the report continues the analysis of London's Local Authorities, which began in the 2014/15 report.

Figure 5.27: London's LCEGS Sales 2024/25 by Local Authority

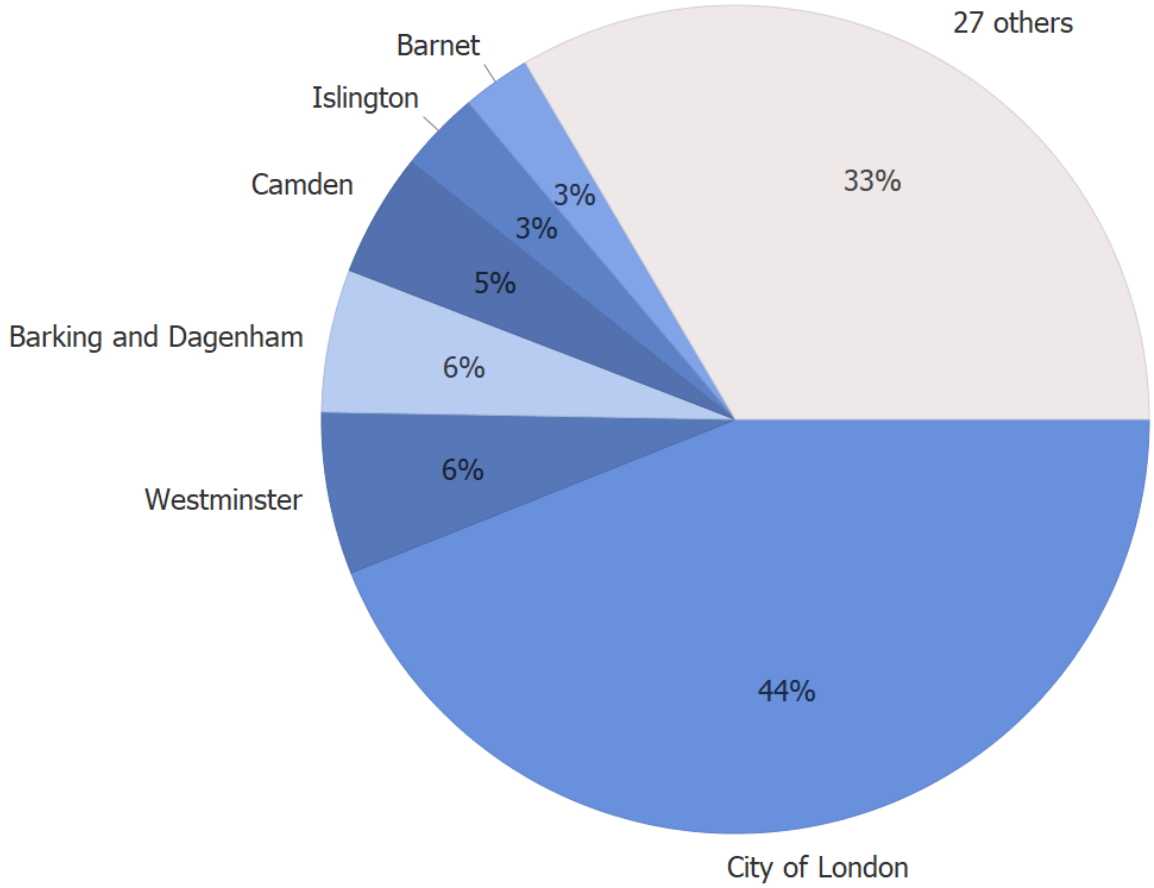


Figure 5.27 shows LCEGS sales for 2024/25 split by Local Authority. The City of London accounts for 44% of London LCEGS sales (42% in 2022/23), if Carbon Finance is excluded from the analysis, then the percentage of London's LCEGS sales associated with the City of London reduces to 8% of the total sales and it is ranked third behind Westminster City and Barking and Dagenham (Camden was also larger than City of London in 2022/23). This highlights that although Carbon Finance is having a lower impact on the overall LCEGS growth rates for London than in previous years, the size of this sub-sector means it has a significant impact on the size of LCEGS within the City of London and its ranking with other Local Authorities in London. Local Authorities are analysed in more detail, by year, by economic measure and by LCEGS activity in the following section.

5.4.2. Local Authority Analysis by Year and Sub-Sector

Table 5.14: Local Authorities Sales, Companies and Employment from 2022/23 to 2024/25

	Sales £m					# Companies					# Employees				
Local Authority	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**
Barking and Dagenham	2,888.3	8.7%	3,139.4	7.8%	3,384.5	1,083	8.5%	1,175	7.7%	1,265	20,106	8.5%	21,818	7.6%	23,487
Barnet	1,381.7	8.9%	1,505.1	8.0%	1,625.3	524	8.7%	570	7.9%	614	9,704	8.7%	10,546	7.8%	11,374
Bexley	355.5	8.4%	385.4	7.7%	415.3	139	7.9%	150	7.4%	161	2,425	7.9%	2,617	7.4%	2,810
Brent	628.0	9.3%	686.4	8.3%	743.1	250	9.1%	273	8.1%	295	4,547	9.2%	4,964	8.0%	5,360
Bromley	807.4	8.8%	878.6	8.1%	949.5	310	8.6%	337	7.8%	363	5,667	8.6%	6,152	7.9%	6,636
Camden	2,502.7	8.5%	2,714.3	7.7%	2,923.0	950	8.2%	1,028	7.5%	1,105	17,892	8.2%	19,363	7.6%	20,825
City of London	21,135.5	11.6%	23,584.9	13.1%	26,662.9	6,814	11.7%	7,613	12.7%	8,583	94,898	11.9%	106,169	12.3%	119,218
Croydon	634.4	8.6%	688.9	7.9%	743.5	243	8.3%	263	7.7%	283	4,471	8.3%	4,841	7.8%	5,217
Ealing	644.2	8.5%	699.2	7.8%	754.0	254	8.4%	275	7.7%	296	4,666	8.5%	5,061	7.7%	5,449
Enfield	765.5	8.8%	832.7	8.1%	900.1	304	8.5%	329	7.7%	355	5,477	8.5%	5,942	7.7%	6,402
Greenwich	342.9	8.2%	371.0	7.3%	398.0	134	7.9%	145	7.1%	155	2,456	7.9%	2,649	7.0%	2,835
Hackney	1,096.3	8.2%	1,185.8	7.4%	1,273.8	441	7.8%	475	7.1%	509	8,120	7.8%	8,754	7.1%	9,377
Hammersmith and Fulham	528.7	8.5%	573.7	7.8%	618.3	201	8.6%	219	7.7%	236	3,778	8.4%	4,097	7.7%	4,414
Haringey	407.6	8.2%	441.2	7.5%	474.1	161	7.8%	174	7.2%	186	3,010	7.9%	3,247	7.1%	3,479
Harrow	625.1	8.9%	680.6	8.2%	736.7	246	8.6%	267	7.9%	288	4,505	8.6%	4,891	7.9%	5,276
Havering	272.8	8.0%	294.7	7.5%	316.7	111	7.9%	120	7.3%	129	2,042	7.8%	2,202	7.3%	2,364
Hillingdon	1,036.1	8.9%	1,127.8	8.1%	1,218.6	390	8.7%	424	7.8%	457	7,280	8.8%	7,922	7.9%	8,551
Hounslow	548.4	8.6%	595.5	7.8%	642.0	216	8.3%	234	7.7%	252	4,052	8.4%	4,392	7.7%	4,728
Islington	1,650.0	8.1%	1,783.8	7.5%	1,917.7	648	7.9%	699	7.4%	751	12,128	7.9%	13,090	7.4%	14,058
Kensington and Chelsea	759.4	8.4%	823.5	7.9%	888.9	284	8.2%	307	7.7%	331	5,493	8.4%	5,953	7.8%	6,420
Kingston upon Thames	470.7	8.8%	512.0	8.0%	552.8	181	8.4%	196	7.7%	211	3,359	8.4%	3,643	7.7%	3,923

Lambeth	966.3	8.8%	1,051.6	8.1%	1,136.4	381	8.7%	414	7.8%	447	7,090	8.7%	7,705	7.8%	8,305
Lewisham	427.0	9.2%	466.2	8.3%	504.9	168	8.4%	183	8.3%	198	2,983	9.1%	3,254	8.2%	3,520
Merton	412.6	8.4%	447.4	7.7%	481.6	166	8.1%	180	7.5%	193	2,997	8.2%	3,243	7.6%	3,488
Newham	284.3	8.3%	307.8	7.7%	331.6	110	8.0%	119	7.6%	128	2,006	8.0%	2,166	7.6%	2,331
Redbridge	570.2	8.9%	621.1	8.1%	671.2	218	8.1%	236	7.7%	254	3,822	8.7%	4,154	7.7%	4,476
Richmond upon Thames	956.8	8.5%	1,037.8	7.8%	1,119.2	362	8.3%	392	7.6%	422	6,863	8.2%	7,427	7.6%	7,995
Southwark	893.5	8.4%	968.6	7.6%	1,042.2	341	8.3%	369	7.5%	397	6,362	8.4%	6,893	7.6%	7,418
Sutton	831.5	8.4%	901.7	7.6%	970.1	322	8.2%	348	7.3%	374	5,777	8.1%	6,247	7.3%	6,701
Tower Hamlets	745.5	8.3%	807.5	7.8%	870.7	295	8.2%	319	7.5%	343	5,585	8.3%	6,048	7.6%	6,510
Waltham Forest	450.9	9.1%	492.0	8.2%	532.2	167	8.8%	181	7.9%	196	3,095	8.8%	3,367	7.9%	3,634
Wandsworth	871.7	8.3%	944.4	7.8%	1,017.7	338	8.1%	366	7.5%	393	6,376	8.2%	6,901	7.5%	7,417
Westminster City	3,307.8	8.0%	3,573.1	7.3%	3,835.6	1,591	8.1%	1,720	7.3%	1,847	31,729	12.8%	35,777	8.6%	38,848

Growth is between one year and the next

Table 5.14 shows the two years of data for Local Authorities for sales, companies and employment. Growth between years is shown in red. Growth between 2022/23 and 2024/25 across all metrics is generally similar at between 7-9% for all Local Authorities, with the City of London being an exception at 11-13%.

Figure 5.28: London's Local Authorities LCEGS Sales 2024/25 (Level 1)

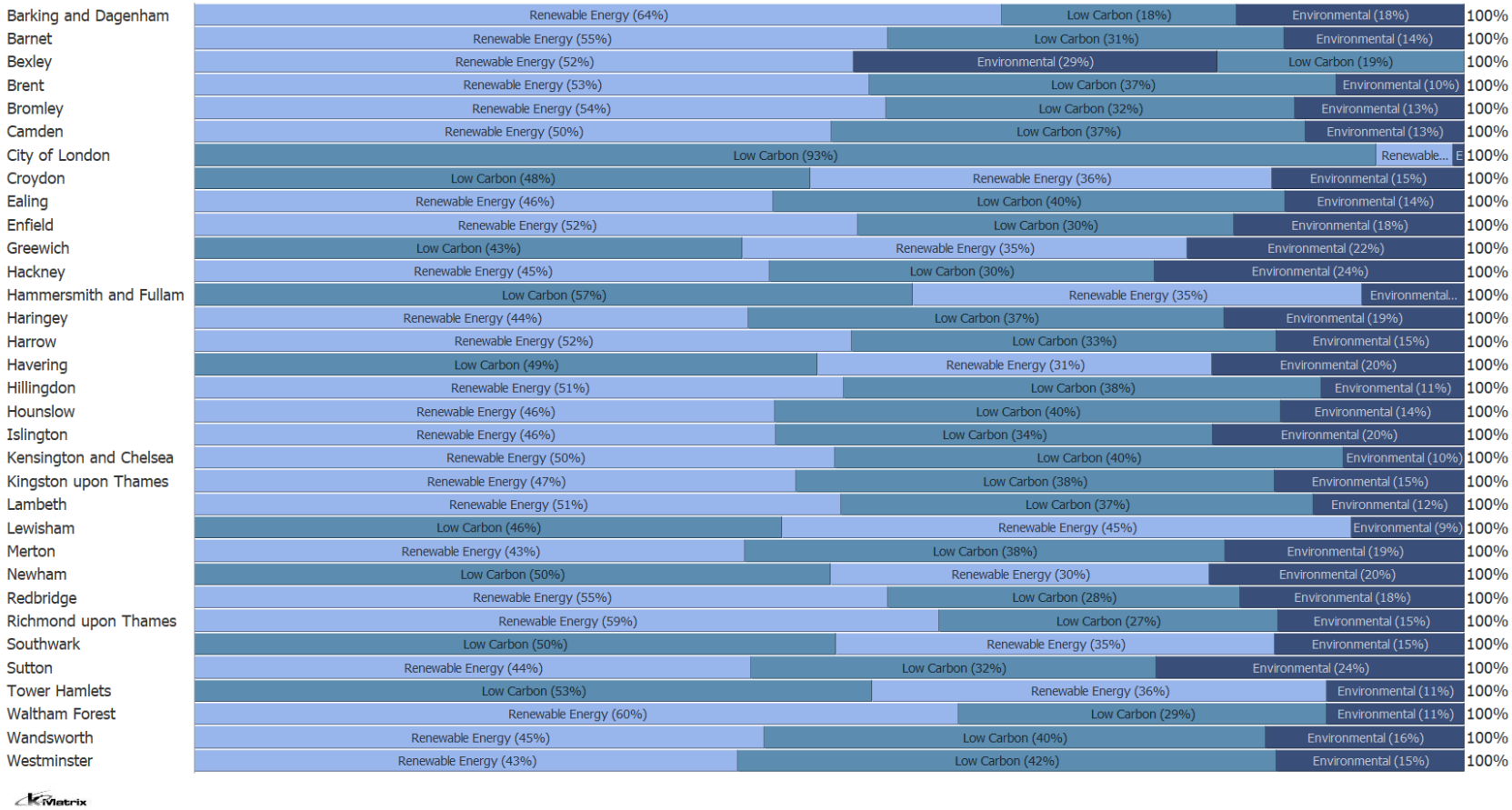
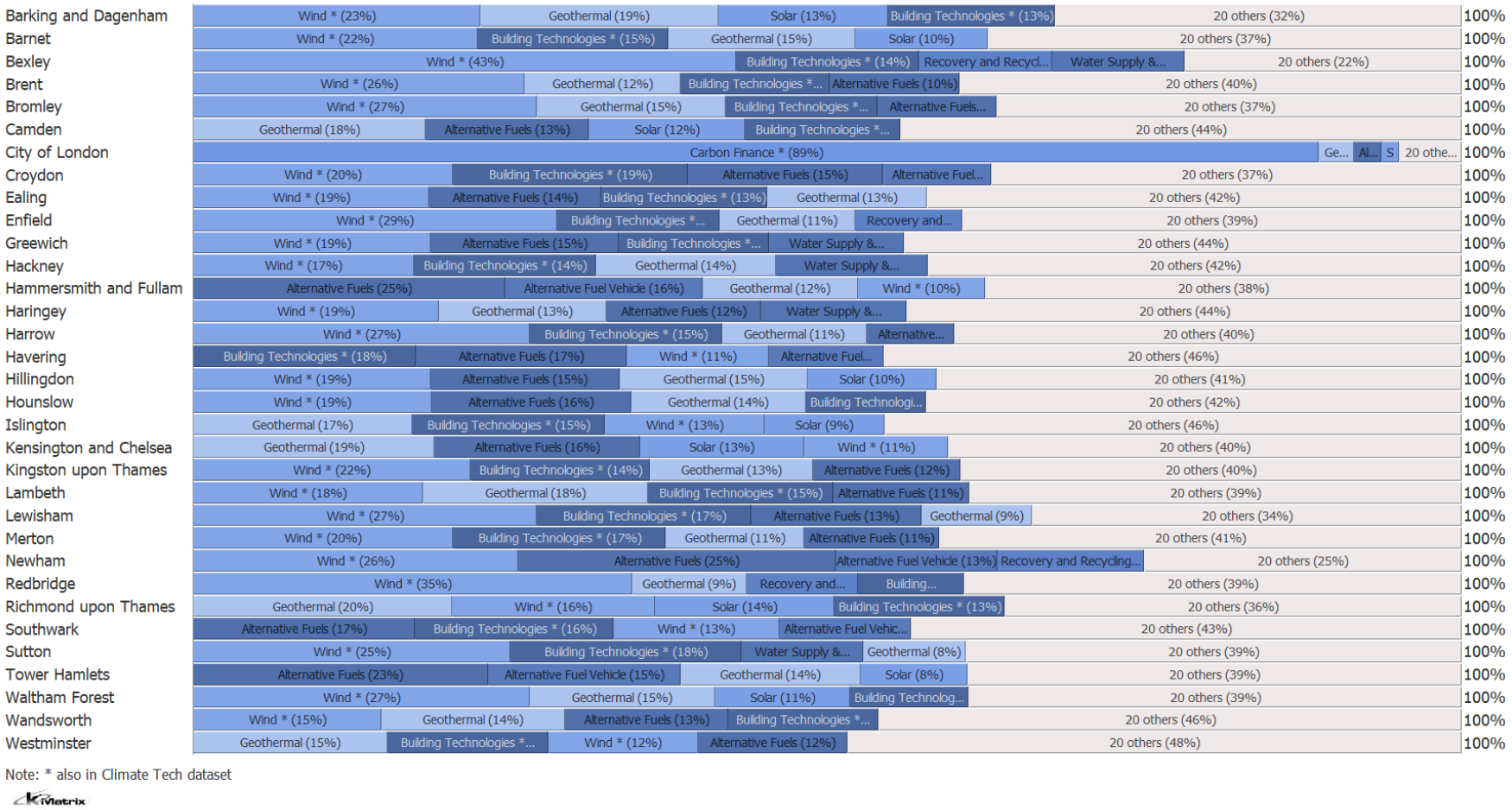


Figure 5.28 shows the different profiles of London's Local Authorities when sales are split at Level 1. The City of London is the most extreme case due to Carbon Finance, but across the remaining Local Authorities there are significant ranges in proportions for Environmental 8-29% (7-30% in 2022/23), Low Carbon 18-57% (18-57% in 2022/23) and Renewable Energy 30-64% (29-63% in 2022/23). This highlights that London's Local Authorities are not a homogeneous market and show subtle regional variations in activity within the LCEGS sector. This is highlighted by Figure 5.29 below.

Figure 5.29: London's Local Authorities LCEGS Sales 2024/25 at Level 2



Note: * also in Climate Tech dataset

Figure 5.29 extends the analysis to include the Top 4 sub-sectors for each of London's Local Authorities. Typically, four sub-sectors account for over 50% of the total value, but the sub-sectors and their rankings do differ significantly across the 33 Local Authorities. But there are some consistent sub-sectors running through many of London's Local Authorities and these include Alternative Fuels, Geothermal, Wind, and Building Technologies, they are represented in most of London's Local Authorities and are consistent with London's top five sub-sectors.

5.5 London's LCEGS by Sub-Region

5.5.1 LCEGS by London's Sub-Region

This section of the report analyses London's Sub-regions. Boroughs in each Sub-Region are provided in Appendix 4.

Figure 5.30: London's LCEGS Sales 2024/25 by Sub-Region

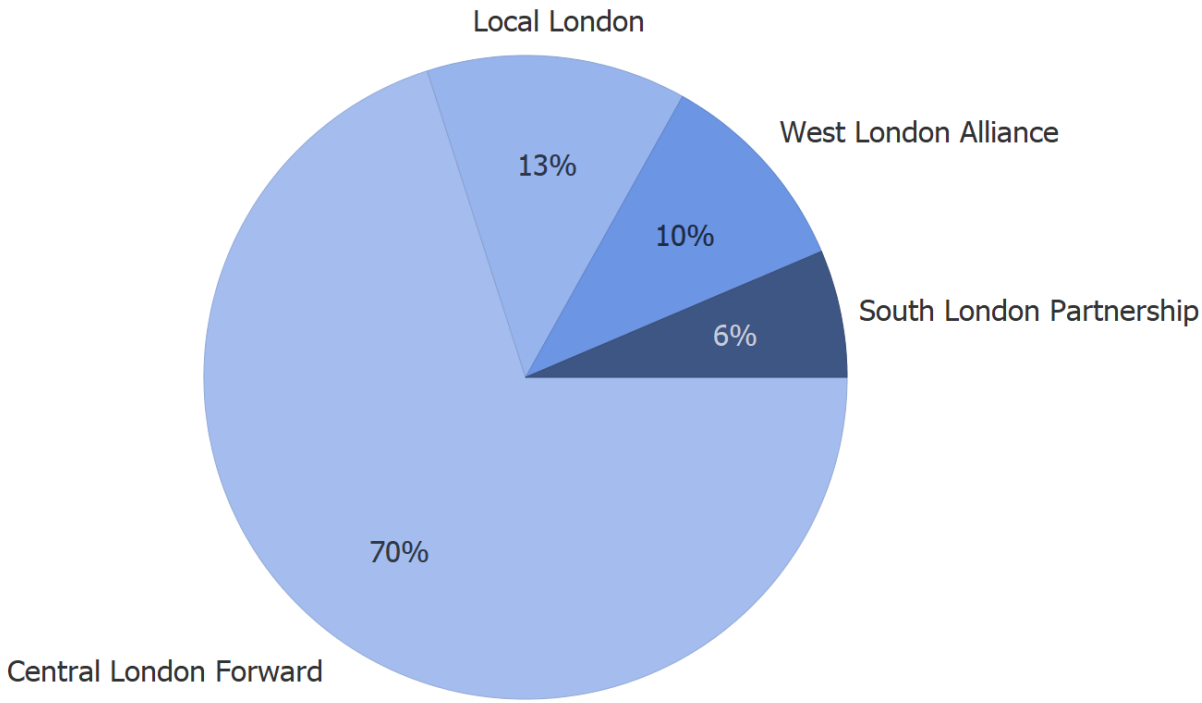


Figure 5.30 shows LCEGS for 2024/25 split by sub-region for sales. Central London Forward accounts for 70% of London's LCEGS sales (69% in 2022/23), 69% of companies (68% in 2022/23) and 66% of employment (65% in 2022/23). If Carbon Finance is excluded from the analysis, then the percentage of London's LCEGS sales associated with Central London Forward reduces to 51% of the total sales, 51% of companies and 52% of employment (51% of sales, 51% of employment and 52% of companies in 2022/23). This highlights that even though Carbon Finance is having a lower impact on the overall LCEGS growth rates for London than in previous years, the size of this sub-sector means it has a significant impact on the size of LCEGS within the Central London Forward sub-region and consequently, its ranking with other sub-regions in London.

London's sub-regions are analysed in more detail, by year, by economic measure and by LCEGS activity in the following section.

5.5.2 London's Sub-regional Analysis by Year and Sub-Sector

Table 5.15: London's Sub-regions Sales, Companies and Employment from 2022/23 to 2024/25

	Sales £m					# Companies					# Employees				
London Sub-region	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**	**2022/23**	**Growth %**	**2023/24**	**Growth %**	**2024/25**
Central London Forward	34,763.3	10.3%	38,345.0	11.0%	42,547.9	12,412	10.1%	13,667	10.4%	15,088	201,665	10.7%	223,154	10.0%	245,395
Local London	6,737.8	8.7%	7,322.7	7.9%	7,899.1	2,577	8.4%	2,793	7.7%	3,007	47,095	8.4%	51,068	7.6%	54,974
South London Partnership	3,305.9	8.5%	3,587.8	7.8%	3,867.2	1,275	8.2%	1,380	7.5%	1,484	23,467	8.2%	25,402	7.6%	27,323
West London alliance	5,392.2	8.8%	5,868.2	8.0%	6,338.1	2,081	8.6%	2,260	7.8%	2,437	38,531	8.7%	41,872	7.8%	45,152

Growth is between one year and the next

Table 5.15 shows the two years of growth data for London's sub-regions for sales, companies and employment. Growth between 2022/23 and 2024/25 across metrics are generally similar at between 7-9% for the sub-regions, with the exception of Central London Forward with generally 10-11%.

Figure 5.31: London's Sub-regions LCEGS Sales 2024/25 (Level 1)

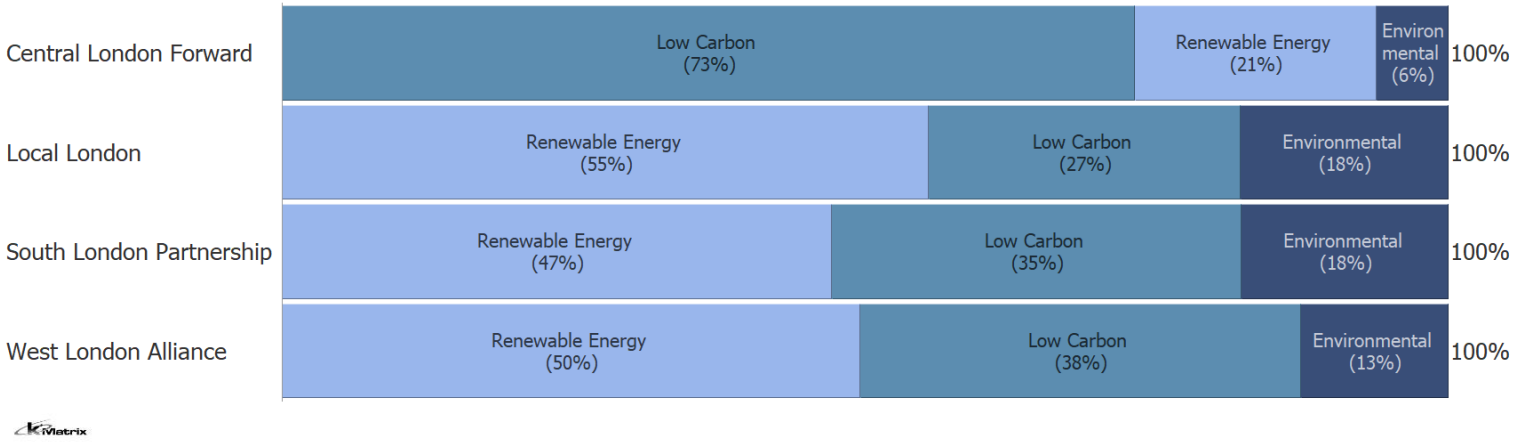
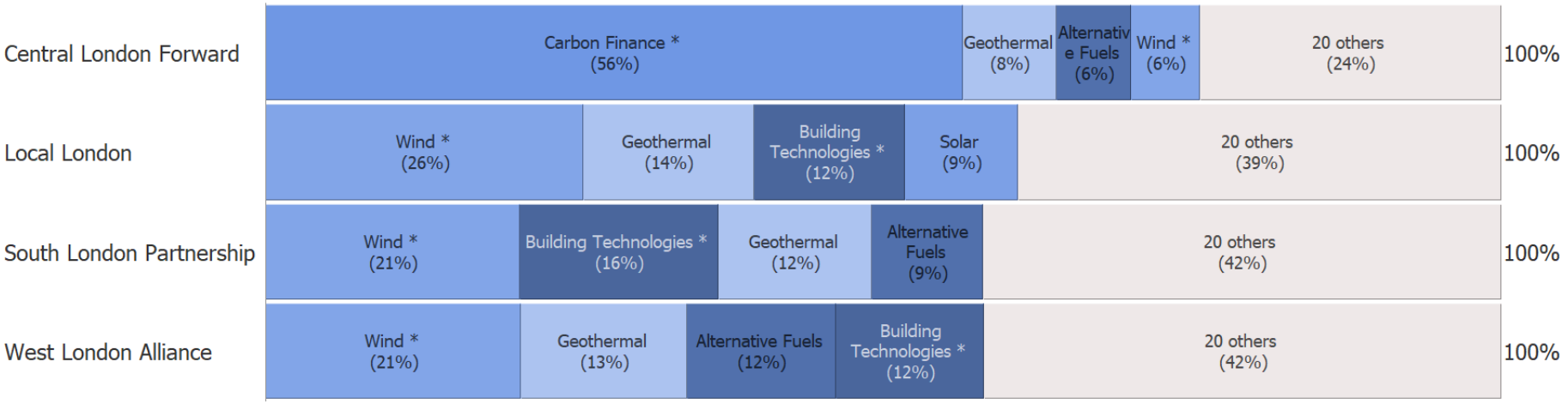


Figure 5.31 shows the different profiles of London's sub-regions when sales are split at Level 1. Central London Forward is the most extreme case due to Carbon Finance, but even across the other sub-regions there are significant ranges in proportions for Environmental 6-18% (7-19% in 2022/23), Low Carbon 27-38% (27-38% in 2022/23) and Renewable Energy 47-55% (46-54% in 2022/23). This highlights that London's sub-regions are not a homogeneous market, but they actually show subtle regional variations in activity within the LCEGS sector. This is further confirmed by Figure 5.32 below.

Figure 5.32: London's Sub-regions LCEGS Sales 2024/25 at Level 2



Note: * also in Climate Tech dataset

Figure 5.32 extends the analysis to include the Top 4 sub-sectors for each of London's sub-regions. Central London Forward is the only sub-region with carbon finance as a top sub-sector. Typically, four sub-sectors account for over 58% of the total value, whilst the sub-sectors are similar, their rankings do differ across the 4 sub-regions. As would be expected these are consistent with the sub-sectors running through many of London's Sub-regions, these being Alternative Fuels, Geothermal, Wind and Building Technologies; and are consistent with London's top five sub-sectors.

5.5.3 London Sub-regions' LCEGS Exports

This section of the report addresses London sub-regions' LCEGS Exports over the past two years and then identifies leading LCEGS export products and services.

Figure 5.33: London Sub-regions' Exports (£m) 2022/23 to 2024/25

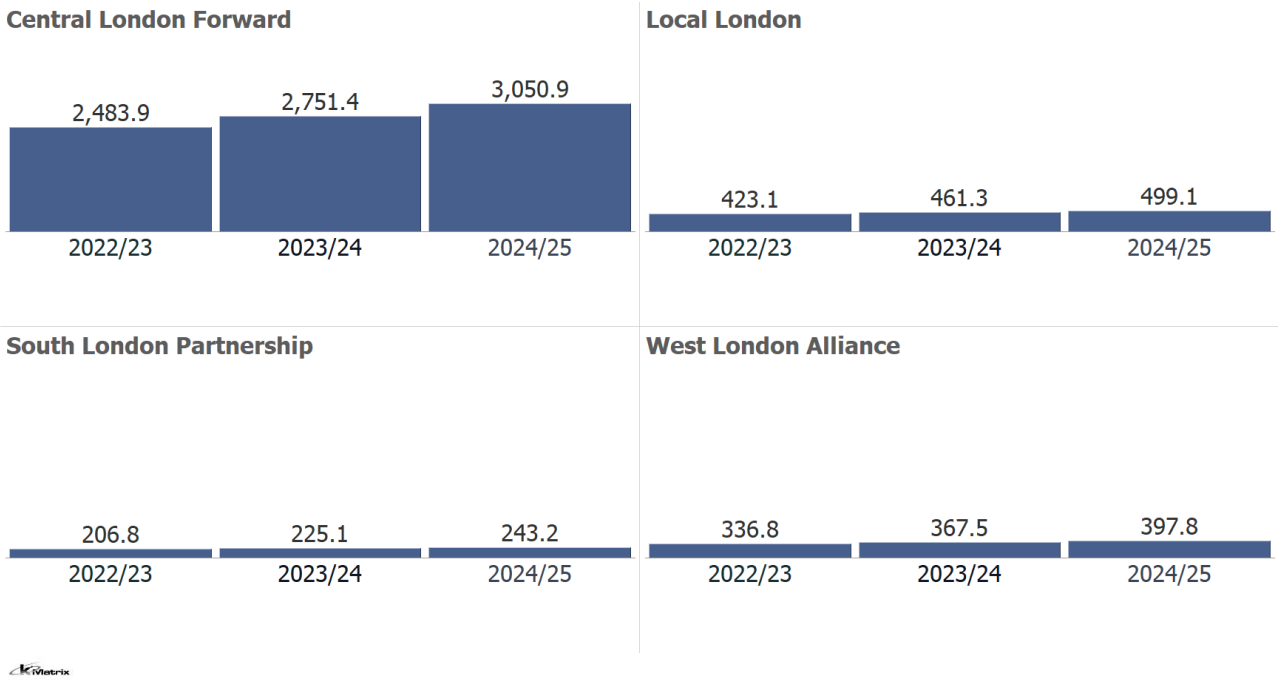


Figure 5.33 shows the value of Central London Forward Exports was £3.1bn in 2024/25, up from £2.5bn in 2022/23. They grew 10.8% from 2022/23 to 2023/24 and 10.9% from 2023/24 to 2024/25.

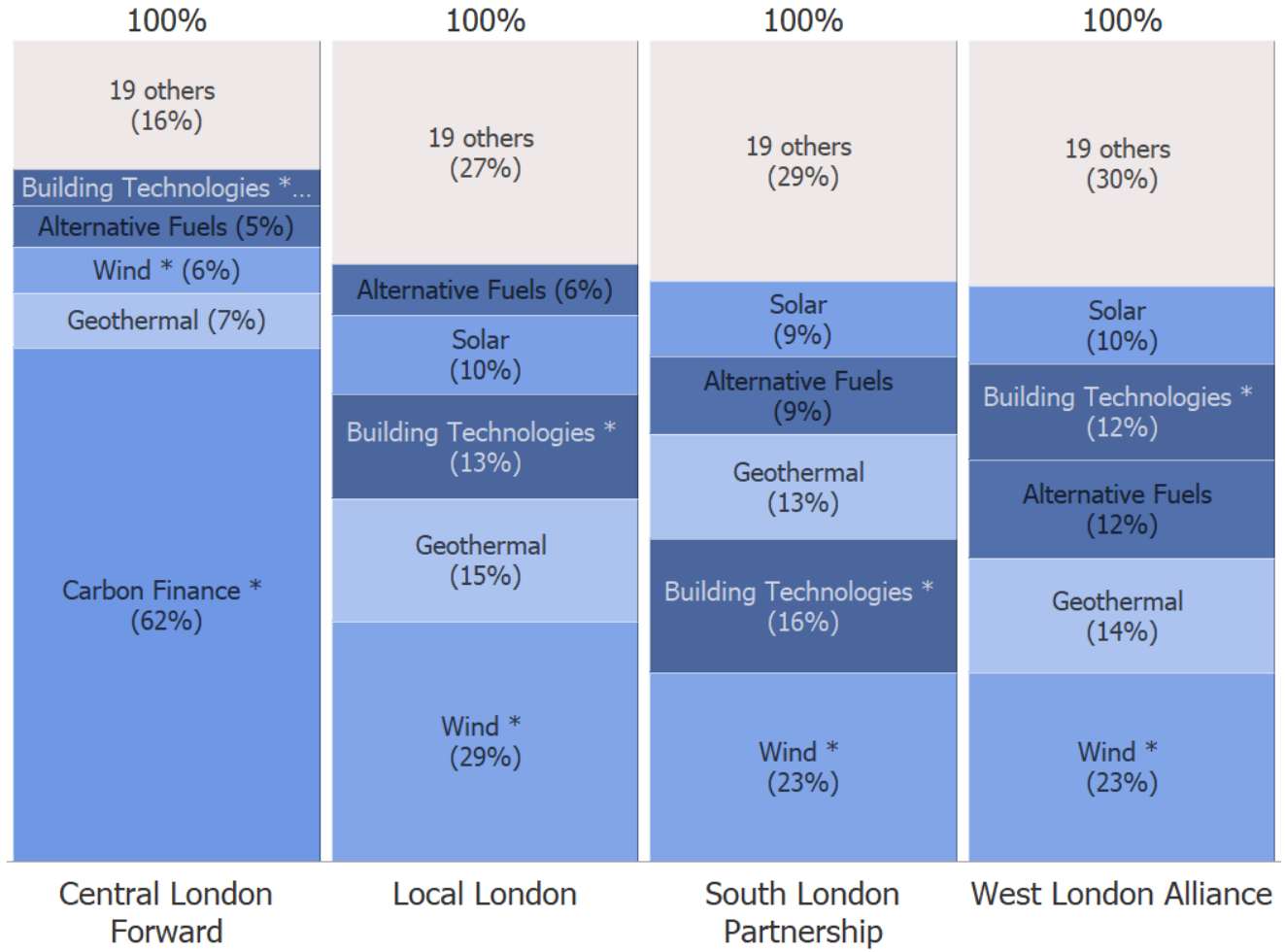
The value of Local London Exports was £500m in 2024/25, up from £423m in 2022/23. They grew 9.0% from 2022/23 to 2023/24 and 8.2% from 2023/24 to 2024/25.

The value of South London Partnership Exports was £243m in 2024/25, up from £207m in 2022/23. They grew 8.8% from 2022/23 to 2023/24 and 8.0% from 2023/24 to 2024/25.

The value of West London Alliance Exports was £398m in 2024/25, up from £337m in 2022/23. They grew 9.1% from 2022/23 to 2023/24 and 8.2% from 2023/24 to 2024/25.

This is compared to London growth of 10.3% and 10.1%, respectively.

Figure 5.34: London Sub-regions' Exports (%) by Sub-Sector 2024/25



Note: * also in Climtate Tech dataset

Figure 5.34 illustrates the proportion of LCEGS exports varies significantly by sub-regions, in line with sales.

Central London Forward is dominated by Carbon Finance 62%; with Geothermal 7%; Wind 6%; Alternative Fuels 5%; and Building Technologies 4% these leading sub-sectors, account for 84% of exports.

The top five export sub-sectors in Local London are: Wind 29%; Geothermal 15%; Building Technologies 13%; Solar 10%; and Alternative Fuels 6%, accounting for 73% of exports.

The top five export sub-sectors in South London Partnership are: Wind 23%; Building Technologies 16%; Geothermal 13%; Alternative Fuels 9%; and Solar 9%, accounting for 71% of exports.

The top five export sub-sectors in West London Alliance are: Wind 23%; Geothermal 14%; Alternative Fuels 12%; Building Technologies 12%; and Solar 10%, accounting for 70% of exports.

5.5.4 London Sub-regions LCEGS Timeseries

Figure 5.35 LCEGS London Sub-regions – Total Sales (£m)

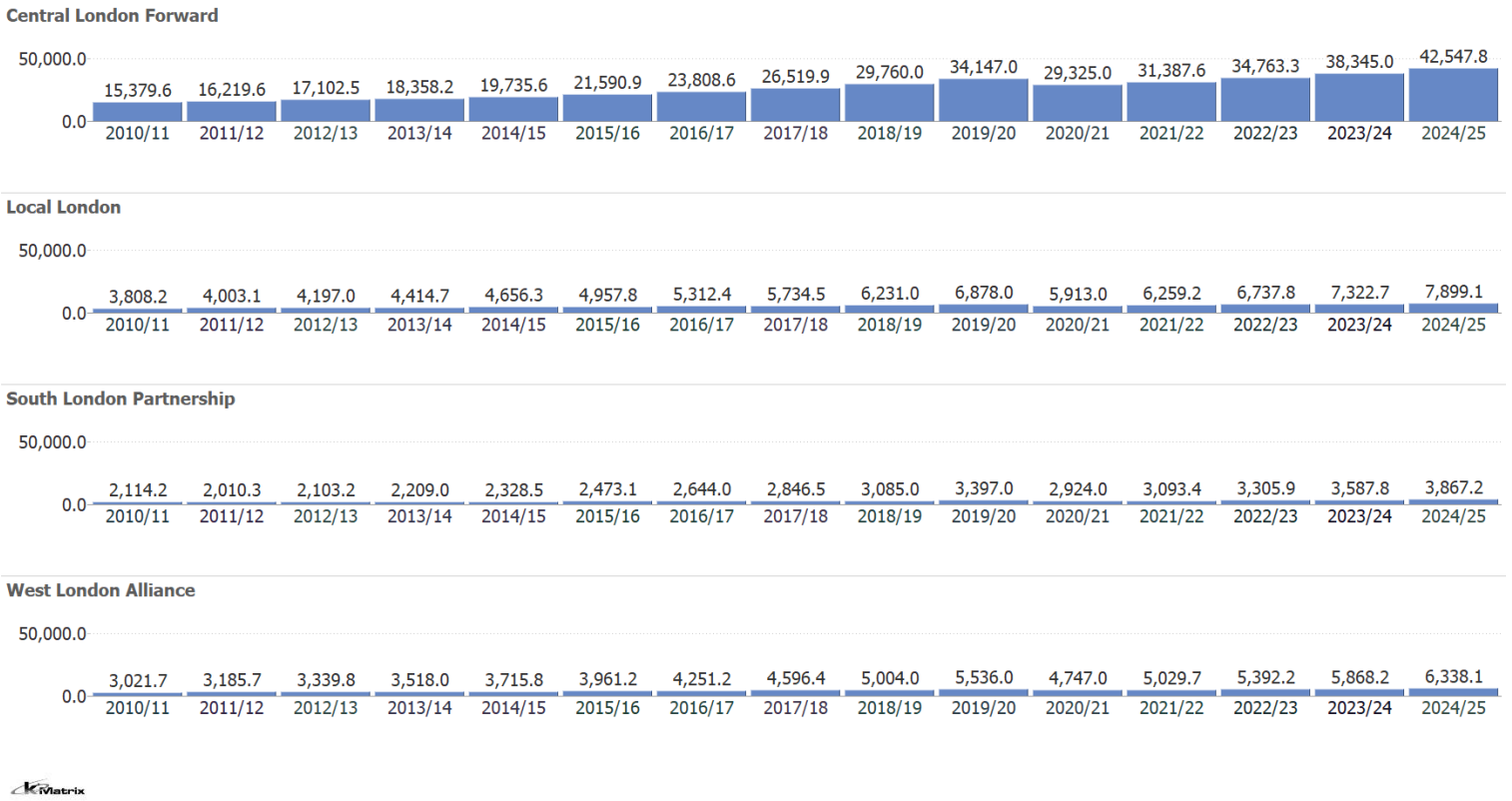


Figure 5.35 illustrates the year-on-year growth of sales for the LCEGS sector in the four London Sub-regions. Central London Forward grew 177%, Local London grew by 107%, South London Partnership by 83% and West London Alliance by 110% between 2010/11 and 2024/25. This compares with London growth of 151% and UK growth of 133% between 2010/11 and 2024/25.

Figure 5.36: LCEGS London Sub-regions – Total Number of Companies

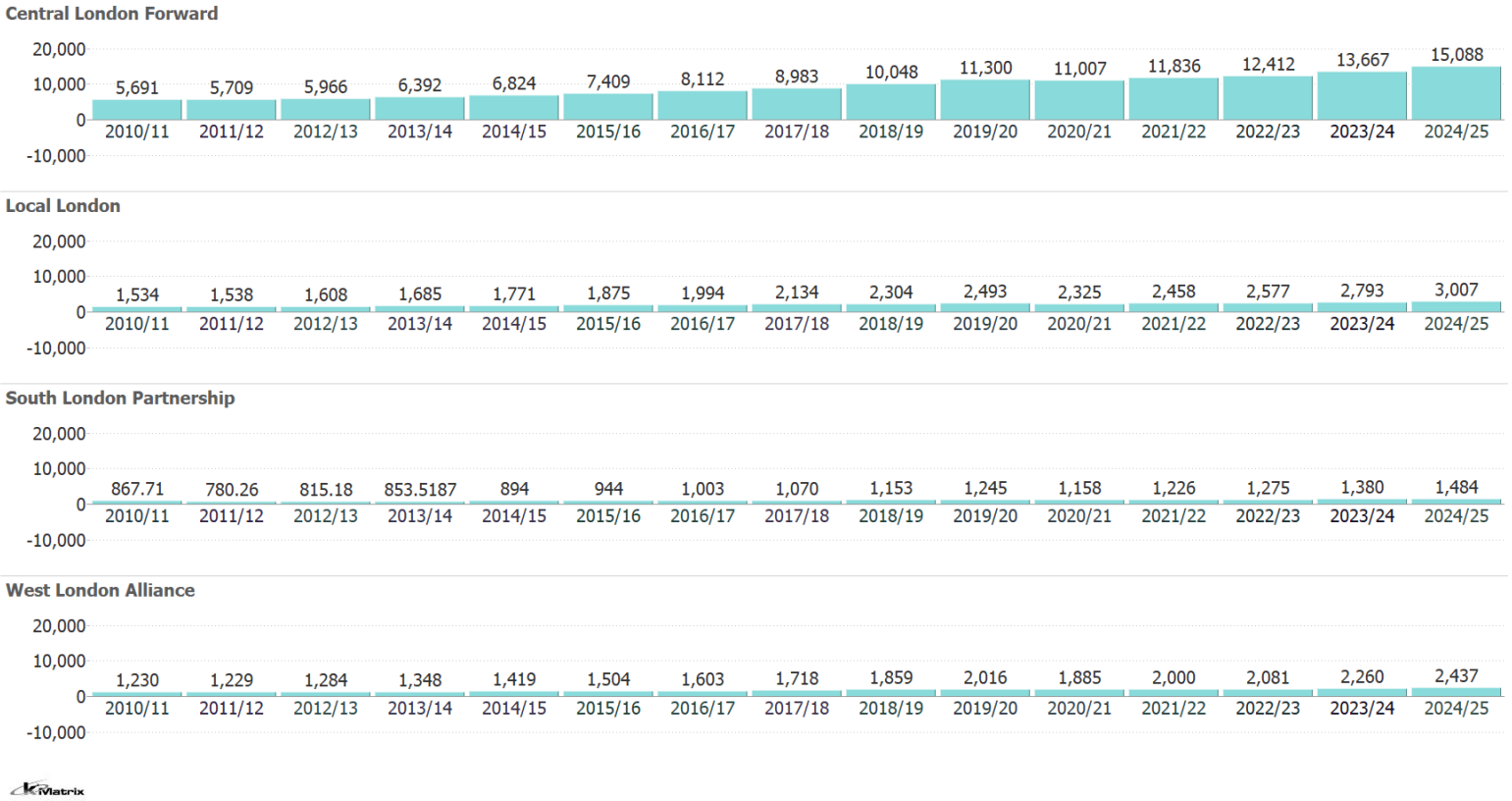


Figure 5.36 illustrates the year-on-year growth of companies for the LCEGS sector in the four London Sub-regions. Central London Forward grew 165%, Local London grew by 96%, South London Partnership by 71% and West London Alliance by 98% between 2010/11 and 2024/25. This compares with London growth of 138% and UK growth of 119% 2010/11 and 2024/25.

Figure 5.37: LCEGS London Sub-regions – Total Number of Employees



Figure 5.37 illustrates the year-on-year growth of employment for the LCEGS sector in the four London Sub-regions. Central London Forward grew 154%, Local London grew by 89%, South London Partnership by 68% and West London Alliance by 93% between 2010/11 and 2024/25. This compares with London growth of 128% and UK growth of 118% 2010/11 and 2024/25.

6. Green Policy Areas

6.1 Introduction and context

6.2.1 A mission based London sub-regional partnership definition of green jobs

This analysis updates the approach we took for previous research we carried out for the London Sub Regional Partnerships in 2021.[16]

This work had three objectives:

1. Develop a shared definition of green jobs to facilitate collaboration and joint working between London's subregional partnerships.
2. Understand demand for green jobs and skills to help member authorities shape employment and skills provision.
3. Develop a shared narrative on green jobs and skills, emphasising the sub-regional partnerships' collective commitment to decarbonisation, to support their public affairs work.

In quantifying green jobs in London today and in the future, this work took a practical "mission-based" approach to defining green jobs:

Green jobs are those jobs that facilitate meeting net zero and broader environmental goals.

Drawing on the decarbonisation pathways set out by the Climate Change Committee, we identified 11 sectors or policy areas, these are set out in the box below:

[16] https://wpieconomics.com/wp-content/uploads/2021/10/London-Green-Jobs-and-Skills-slidedeck-FINAL.pdf

Box 1: Mission-based definition: proposed policy areas for a London based definition

Source: WPI Economics

6.1.2 Green policy areas in London in 2025

This chapter uses the mission-based classification to examine the number and type of green jobs in London that are relevant to a given policy area (throughout the remainder of this report our figures are Full-Time Equivalents, but we continue to use the term job for convenience). To quantify the gross number of jobs in London in the eleven policy areas, we use the Low Carbon Environmental Goods and Services (LCEGS) sector dataset, along with additional datasets for Circular Economy,

Climate Adaptation and Urban Green Infrastructure that have been developed by kMatrix for this work.

Table 6.1 summarises the main results in terms of the total employment in green jobs policy areas in the capital in 2025. The four largest green policy areas in London are:

- Circular Economy (229,700), representing 3.5% of all jobs in London.
- Power (118,200) representing 1.8% of all jobs in London.
- Green finance (110,200), representing 1.7% of all jobs in London.
- Homes and buildings (94,700), representing 1.5% of all jobs in London.

Stakeholder interviews added context to the different needs of the largest policy areas in Table 6.1:

- Green finance and climate change strategy, policy, monitoring and planning are largely knowledge-based, service-led strengths that critically underpin other aspects of the green economy. These knowledge-intensive policy areas can scale through capital, advisory capability and export markets;
- Circular economy and homes and buildings are more delivery-led and reliant on local supply chains requiring predictable local demand, accredited delivery standards, practical training routes and enough firms with capacity to bid for and deliver work.
- Power and low carbon transport are infrastructure-led and rely on coordination across planning, grid capacity, public procurement and specialist skills.

Table 6.1: Number of jobs by policy area, London

Policy area	Definition	London	
		Numbers of jobs	% of total workforce jobs
Circular Economy	Waste management and circular economy	229,700	3.54%
Climate adaptation	Including flood defences, retrofitting of buildings to be resilient to extreme weather/climate events, nature-based solutions to reduce climate impacts and civil and mechanical engineering for infrastructure adaptation	5,500	0.08%
Climate change Research and Development	Including private sector, academic and public research	3,500	0.05%

Climate change strategy, policy, monitoring and planning	Including public, private and NGO sector strategy and policy, outreach to citizens, environmental monitoring and use of planning system to achieve net zero	5,000	0.08%
Urban Green Infrastructure	Within a London context this will focus on urban green infrastructure, and include activity aimed at increasing biodiversity directly or through offsetting.	1,700	0.03%
Green finance	Structured financial activity that's been created to ensure a better environmental outcome	110,200	1.69%
Homes and Buildings	Retrofit, building new energy-efficient homes, heat pumps, smart devices and controls, heat networks and hydrogen boilers	94,700	1.46%
Industrial decarbonisation, hydrogen and carbon capture	Including hydrogen production and industrial use, carbon capture, utilisation & storage (CCUS) and industrial decarbonisation	1,100	0.02%
Low Carbon Transport	Low or zero emission vehicles, aviation and maritime, rail, public transport and walking or cycling	19,300	0.29%
Power	Including renewables (such as wind, solar and hydropower), nuclear power, grid infrastructure, energy storage and smart systems technology;	118,200	1.82%
Reducing localised pollution	Reduction of air pollution, water pollution and noise; London has ambitious goals across all three of these areas	1,700	0.03%

Source: WPI Economics calculations based on data supplied by kMatrix.
Note: Our total green jobs estimate is slightly lower than that identified by kMatrix for London as we do not include some activity in the water sector, waste collection and social prescribing where it does not fall within the scope of our mission-based definition

6.1.3 Projecting employment needs by green policy areas in London up to 2050

In this chapter we project the potential **gross number of green jobs** across each policy area that there will be in the coming decades. This allows us to understand the potential demand for workers with the requisite skills. This can inform approaches to skills provision, however it does not take into account the number of jobs that will be destroyed.

This work is an update of our original methodology developed for the 2022 report, "London Green Jobs and Skills", to estimate the growth of employment across green

policy areas in London. Our original approach to estimating the growth of employment across green policy areas in London is set out below:

1. **Estimating the jobs growth rate for each policy area –** this was done based on a range of sources including Ricardo energy and environment for the CCC (2017) 'UK business opportunities of moving to a low-carbon economy'[17] and Ecuity for LGA (2021) 'Local green jobs - accelerating a sustainable economic recovery[18] as well as a number of other sources which support separate sector specific assumptions.[19]
2. **Created a time series** – based on these sources, we mapped growth between 2020-2050, with growth rates tending to be fastest in the next decade and somewhat slower to 2050 as many net zero targets are delivered and the green sector matures.
3. **Creating three scenarios –** these provide us with our central scenario. We then created a low scenario to reflect the potential for a slower roll-out of green infrastructure and services, and a high scenario to reflect the potential for London to capture more of the UK and global markets, particularly in the case of services such as green finance, consultancy and research. We have constructed these using evidence on potentially slower or faster growth rates where available. Where direct evidence to inform these assumptions was not available, we have projected a low growth rate of half the central rate, with the high growth rate then at 150% of the central rate. This provides an indication of the potential variation in outcomes.

This report updates the previous approach to:

1. **Account for any updates to original data sources used** – for example, the Circular Economy projections have been updated to reflect the newest iteration

[17] The Climate Change Committee (2017) UK business opportunities of moving to a low carbon economy, Final Report. Available at https://www.theccc.org.uk/publication/uk-energy-prices-and-bills-2017-report-supporting-research/ Accessed on 25 October 2021

[18] LGA (2021) Local green jobs – accelerating a sustainable economic recovery. Available at https://www.local.gov.uk/local-green-jobs-accelerating-sustainable-economic-recovery Accessed on 25 October 2021

[19] Full list of sources used:

- CCC (2017): UK business opportunities of moving to a low carbon economy
- LGA / Ecuity (2020): Local green jobs - accelerating a sustainable economic recovery
- Place-Based Carbon Action Network Just Transition Jobs Tracker
- Building the net zero energy workforce (National Grid)
- Net Zero Housing workforce / London Councils Pathways Report (Parity Projects)
- ILO (2020) The employment impact of climate change adaptation
- Vivid Economics and Barton Willmore (2020) Levelling Up and Building Back Better Through Urban Green Infrastructure: An Investment Options Appraisal
- Green Alliance / Wrap (2015) Opportunities to tackle Britain's labour market challenges through growth in the circular economy

of analysis from Green Alliance that has come out since the previous analysis was concluded.[20]

2. **Takes stock of growth observed between 2020 and 2025 and adjusts predictions accordingly** – for example, our predictions for Low Carbon Transport have been adjusted based on lower-than-expected growth that has been observed.

The results based on our updated approach can be found below. Table 6.2 provides a summary of the year-on-year growth rates for employment split by policy area, derived from the approach above. Key features include that many of the sectors are expected to grow significantly in the period to 2030. For example, industrial decarbonisation, hydrogen and carbon capture (21.5%), low carbon transport (17.5%), climate change strategy, monitoring and planning (10.9%), climate change research and development (10.9%) all have double-digit annual growth rates in the period to 2030. This reflects the need to move quickly in the next decade to face the climate emergency. Following this period of very fast growth, yearly growth rates tend to reduce over the years to 2050, but remain significantly above that expected across the economy generally.

Table 6.2: Projections of yearly growth rates of green jobs by sector

	2025-2030	2031-2035	2036-2040	2041-2050
Green finance	5.3%	5.3%	5.3%	5.3%
Power	4.3%	3.8%	3.8%	2.4%
Homes and Buildings	7.3%	1.3%	1.3%	1.3%
Low Carbon Transport	17.5%	17.5%	3.8%	3.8%
Climate change strategy, policy, monitoring and planning	10.9%	5.3%	5.3%	5.3%
Climate change Research and Development	10.9%	5.3%	5.3%	5.3%
Circular Economy	2.3%	2.3%	1.2%	1.2%
Industrial decarbonisation, hydrogen and carbon capture	21.5%	6.3%	6.3%	6.3%
Climate adaptation	3.1%	3.1%	3.1%	3.1%
Reducing localised pollution	3.1%	3.1%	3.1%	3.1%
Urban Green Infrastructure	4.1%	4.1%	2%	2%

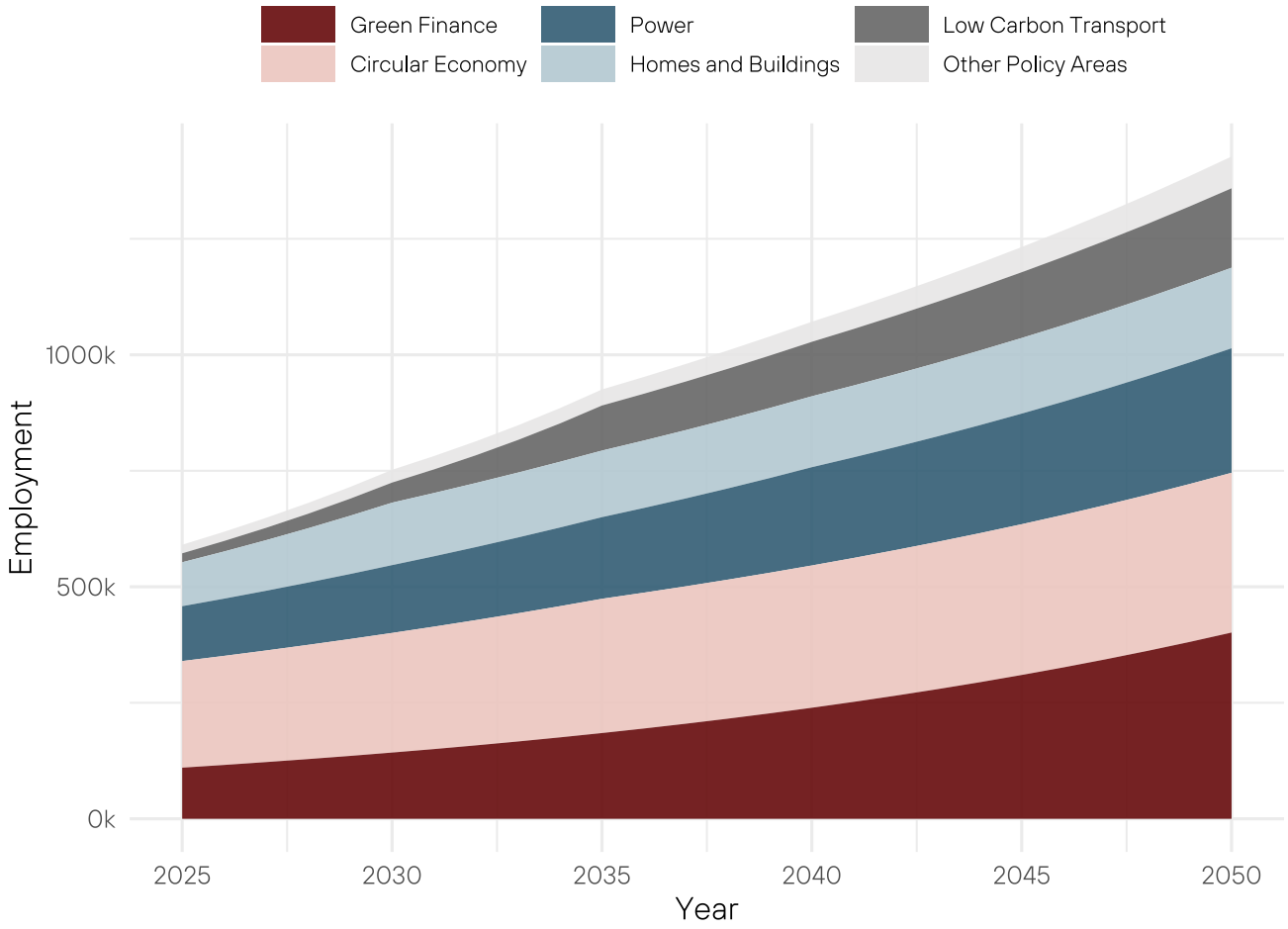
Source: WPI Economics analysis

Figure 6.1 shows the central scenario for the green jobs policy areas in London projected out to 2050. By 2050, there are five policy areas which provide the overwhelming majority of jobs. These are:

[20] Green Alliance (2021) Levelling up through circular economy jobs

- Green finance, where 401,400 jobs are projected under central scenario
- Circular economy, where 344,400 jobs are projected under central scenario
- Power, where 268,300 jobs are projected under central scenario
- Homes and Buildings, where 173,600 jobs are projected under central scenario
- Low Carbon Transport, where 171,200 jobs are projected under central scenario.

Figure 6.1: Total employment by policy area, central projections, London, 2025-2050



Source: WPI Economics analysis

Table 6.3 gives further detail on the projections of green jobs by policy area in 2035 and 2050 split by low, medium, and high scenario. Please note in order to avoid potential double-counting of jobs, the total number of green jobs at the bottom of the table is calculated excluding Circular Economy, Climate Adaptation, and Urban Green Infrastructure.

Table 6.3: Low, central and high projections of green jobs in London in 2025, 2035 and 2050

Policy area	2025	2035			2050		
		Low	Central	High	Low	Central	High
Circular Economy	**229,700**	242,200	**289,400**	363,900	252,000	**344,400**	515,900
Climate Adaptation	**5,500**	6,300	**7,500**	8,400	7,600	**11,800**	16,000
Urban Green Infrastructure	**1,700**	2,000	**2,500**	3,000	2,400	**3,300**	4,700
Climate Change Research and Development	**3,500**	6,400	**7,600**	8,800	12,100	**16,400**	22,200
Climate Change Strategy, Policy, Monitoring and Planning	**5,000**	9,200	**10,800**	12,700	17,400	**23,600**	31,800
Green Finance	**110,200**	167,700	**184,800**	203,400	314,900	**401,400**	510,400
Homes and Buildings	**94,700**	116,900	**143,500**	190,700	128,700	**173,600**	173,600
Industrial Decarbonisation, Hydrogen and Carbon Capture	**1,100**	2,100	**3,900**	6,800	3,300	**9,600**	26,300
Low Carbon Transport	**19,300**	44,700	**97,100**	199,500	59,500	**171,200**	463,000
Power	**118,200**	144,500	**175,900**	213,400	178,700	**268,300**	400,100
Reducing Localised Pollution	**1,700**	1,900	**2,300**	2,600	2,400	**3,700**	5,000
TOTAL (excluding Circular Economy, Climate Adaptation and Urban Green Infrastructure)	**354,00**	494,000	**625,900**	838,000	717,000	**1,068,000**	1,632,000

Source: WPI Economics analysis

Several policy areas such as Power, Homes and buildings, and Green Finance performed well against the previous set of projections in 2021, whereas other policy areas such as Low Carbon Transport and Industrial Decarbonisation have fallen further behind.[21]

In achieving this projections of sector growth, stakeholder engagement outlined how further progress is dependent upon delivery within four key cross-cutting areas of business needs:

- **Investment support.** Greater public and private funding is needed to enable firms to invest in sustainability activities. This should be supported by clear

[21] WPI Economics (2021) London Green Jobs and Skills

guidance on how businesses can make sustainable investments effectively and in line with wider net zero objectives.

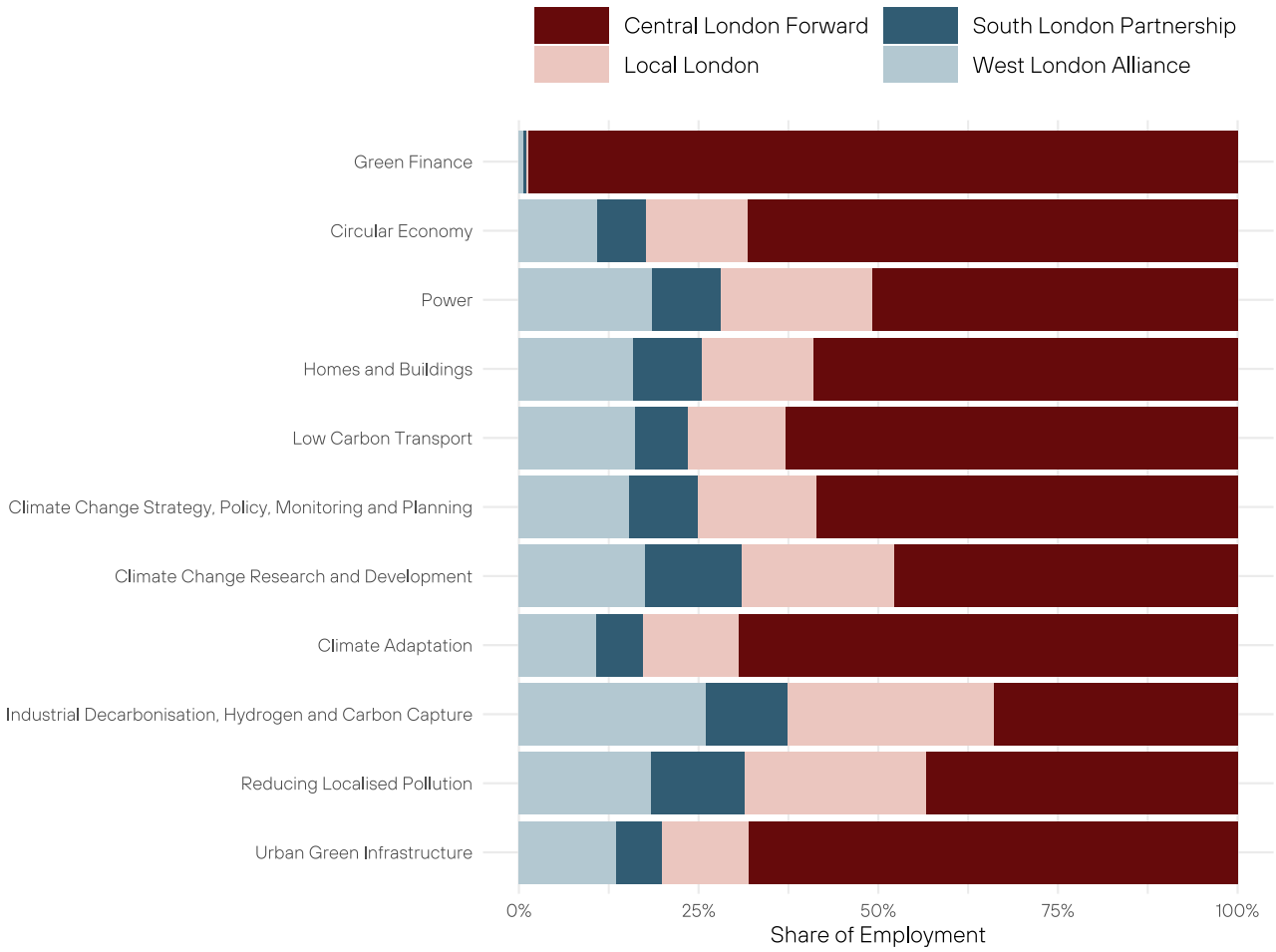
- **Policy certainty.** More stable and consistent policy frameworks are needed to give businesses the confidence to plan and invest over the long term. Stakeholders highlighted frequent policy changes, particularly from central government, as a major source of uncertainty and a barrier to green business growth.
- **Skills and training alignment.** There is strong demand for modular and responsive training provision that can adapt quickly to changes in "green skills". Stakeholders also emphasised the need for better alignment between training providers and employer requirements, supported through mechanisms such as the London Local Skills Improvement Plan (LSIP) and Inclusive Talent Strategy (ITS).
- **Streamlined procurement.** Funding application and reporting processes should be simplified and joined-up, particularly for GLA bids and Section 106 funding, to reduce the administrative burden on businesses. This would help encourage greater engagement from firms, especially SMEs that often lack the time and capacity to navigate complex processes.

These needs are strongest for SMEs, which often lack the capacity to navigate funding schemes, demonstrate compliance, compete for large contracts or release staff for training.

6.2 Projections for sub-regional partnerships

Policy areas generate different numbers of jobs across the sub-regional partnerships in our projections. The majority of jobs in green policy areas in 2050 are concentrated in Central London Forward boroughs - most notably, the overwhelming majority of Green Finance jobs are located there. Figure 6.2 shows the detailed proportional split of jobs between different sub-regional partnerships by policy area.

Figure 6.2: Share of total projected 2050 employment for each policy area by sub-regional partnership under central scenario



Source: WPI Economics analysis

The remainder of this chapter presents jobs projection for each sub-regional partnership.

6.2.1 Central London Forward

By 2050, there are five policy areas which provide the overwhelming majority of green jobs in the Central London Forward partnership. These are:

- Green finance, where 369,100 jobs are projected under central scenario
- Circular economy, where 234,900 jobs are projected under central scenario
- Power, where 136,400 jobs are projected under central scenario
- Low Carbon Transport, where 107,700 jobs are projected under central scenario
- Homes and Buildings, where 102,500 jobs are projected under central scenario

Stakeholder evidence reinforces the scale of Central London Forward's projected green jobs, particularly in green finance and associated sectors in insurance, professional services, policy and advocacy. Westminster and the City of London also illustrate how central boroughs can act as test beds for heritage retrofit, large commercial property decarbonisation and green procurement.

Table 6.4 gives further detail on the projections of green jobs by policy area in 2035 and 2050 split by low, medium, and high scenario in the Central London Forward partnership.

Table 6.4: Central London Forward: Low, central and high projections of green jobs in in 2035 and 2050

Sector	2025	2035			2050		
		Low	Central	High	Low	Central	High
Circular Economy	**156,700**	165,200	**197,400**	248,300	171,900	**234,900**	352,000
Climate Adaptation	**3,800**	4,400	**5,200**	5,900	5,300	**8,200**	11,100
Urban Green Infrastructure	**1,100**	1,400	**1,700**	2,000	1,600	**2,300**	3,200
Climate Change Research and Development	**1,700**	3,100	**3,600**	4,200	5,800	**7,900**	10,600
Climate Change Strategy, Policy, Monitoring and Planning	**2,900**	5,400	**6,400**	7,400	10,200	**13,800**	18,700
Green Finance	**108,700**	165,500	**182,400**	200,800	310,700	**396,100**	503,700
Homes and Buildings	**55,900**	69,000	**84,700**	112,500	75,900	**102,500**	102,500
Industrial Decarbonisation, Hydrogen and Carbon Capture	**400**	700	**1,300**	2,300	1,100	**3,300**	8,900
Low Carbon Transport	**12,100**	28,200	**61,100**	125,500	37,500	**107,700**	291,400
Power	**60,100**	73,400	**89,400**	108,400	90,800	**136,400**	203,300
Reducing Localised Pollution	**700**	800	**1,000**	1,100	1,000	**1,600**	2,200
TOTAL (excluding Circular Economy, Climate Adaptation and Urban Green Infrastructure)	**243,000**	346,000	**430,000**	562,000	533,000	**769,000**	1,141,000

Source: WPI Economics analysis

6.2.2 Local London

By 2050, there are four policy areas which provide the overwhelming majority of green jobs in the Local London partnership. These are:

- Power, where 56,600 jobs are projected under central scenario
- Circular economy, where 48,900 jobs are projected under central scenario
- Homes and Buildings, where 27,100 jobs are projected under central scenario
- Low Carbon Transport, where 23,400 jobs are projected under central scenario

The Local London sub-region highlights the inter-relationship behind key future growth areas. For example, the Circular Construction Hub in the Royal Docks demonstrates how East London can combine construction demand, reuse of materials, local green jobs and supply-chain innovation.

Table 6.5 gives further detail on the projections of green jobs by policy area in 2035 and 2050 split by low, medium, and high scenario in the Local London partnership.

Table 6.5: Local London: Low, central and high projections of green jobs in in 2035 and 2050

Sector	2025	2035			2050		
		Low	Central	High	Low	Central	High
Circular Economy	**32,600**	34,400	**41,100**	51,700	35,800	**48,900**	73,300
Climate Adaptation	**700**	800	**1,000**	1,100	1,000	**1,600**	2,100
Urban Green Infrastructure	**400**	700	**700**	800	1,200	**1,600**	2,000
Climate Change Research and Development	**700**	1,400	**1,600**	1,900	2,600	**3,500**	4,700
Climate Change Strategy, Policy, Monitoring and Planning	**800**	1,500	**1,800**	2,100	2,900	**3,900**	5,300
Urban Green Infrastructure	**200**	200	**300**	400	300	**400**	600
Homes and Buildings	**14,800**	18,300	**22,400**	29,800	20,100	**27,100**	27,100
Industrial Decarbonisation, Hydrogen and Carbon Capture	**300**	600	**1,100**	2,000	1,000	**2,800**	7,500
Low Carbon Transport	**2,600**	6,100	**13,300**	27,200	8,100	**23,400**	63,200
Power	**24,900**	30,500	**37,100**	45,000	37,700	**56,600**	84,300

Reducing Localised Pollution	**400**	500	**600**	700	600	**900**	1,200
TOTAL (excluding Circular Economy, Climate Adaptation and Urban Green Infrastructure)	**45,000**	59,000	**79,000**	109,000	74,000	**120,000**	195,000

Source: WPI Economics analysis

6.2.3 South London Partnership

By 2050, there are four policy areas which provide the overwhelming majority of green jobs in the South London Partnership. These are:

- Power, where 25,900 jobs are projected under central scenario
- Circular economy, where 23,000 jobs are projected under central scenario
- Homes and Buildings, where 16,400 jobs are projected under central scenario
- Low Carbon Transport, where 12,400 jobs are projected under central scenario

Table 6.6 gives further detail on the projections of green jobs by policy area in 2035 and 2050 split by low, medium, and high scenario in the South London Partnership.

Table 6.6: South London Partnership: Low, central and high projections of green jobs in in 2035 and 2050

Sector	2025	2035			2050		
		Low	Central	High	Low	Central	High
Circular Economy	**15,400**	16,200	**19,400**	24,400	16,900	**23,000**	34,500
Climate Adaptation	**400**	400	**500**	600	500	**800**	1,000
Urban Green Infrastructure	**100**	100	**200**	200	200	**200**	300
Climate Change Research and Development	**500**	900	**1,000**	1,200	1,600	**2,200**	3,000
Climate Change Strategy, Policy, Monitoring and Planning	**500**	900	**1,000**	1,200	1,600	**2,200**	3,000
Green Finance	**300**	500	**500**	600	900	**1,200**	1,500
Homes and Buildings	**8,900**	11,000	**13,600**	18,000	12,200	**16,400**	16,400
Industrial Decarbonisation, Hydrogen and Carbon Capture	**100**	200	**400**	800	400	**1,100**	3,000
Low Carbon Transport	**1,400**	3,200	**7,000**	14,400	4,300	**12,400**	33,500
Power	**11,400**	13,900	**17,000**	20,600	17,200	**25,900**	38,600
Reducing Localised Pollution	**200**	300	**300**	300	300	**500**	600
TOTAL	**23,000**	31,000	**41,000**	57,000	39,000	**62,000**	100,000

(excluding Circular Economy, Climate Adaptation and Urban Green Infrastructure)		

Source: WPI Economics analysis

6.2.4 West London Alliance

By 2050, there are four policy areas which provide the overwhelming majority of green jobs in the West London Alliance. These are:

- Power, where 49,500 jobs are projected under central scenario
- Circular economy, where 37,500 jobs are projected under central scenario
- Homes and Buildings, where 27,600 jobs are projected under central scenario
- Low Carbon Transport, where 27,700 jobs are projected under central scenario

Table 6.7 gives further detail on the projections of green jobs by policy area in 2035 and 2050 split by low, medium, and high scenario in the West London Alliance.

Table 6.7: West London Alliance: Low, central and high projections of green jobs in in 2035 and 2050

Sector	2025	2035			2050		
		Low	Central	High	Low	Central	High
Circular Economy	**25,000**	26,400	**31,500**	39,600	27,400	**37,500**	56,200
Climate Adaptation	**600**	700	**800**	900	800	**1,300**	1,700
Urban Green Infrastructure	**200**	300	**300**	400	300	**500**	600
Climate Change Research and Development	**600**	1,100	**1,300**	1,500	2,100	**2,900**	3,900
Climate Change Strategy, Policy, Monitoring and Planning	**800**	1,400	**1,700**	1,900	2,700	**3,600**	4,900
Green Finance	**700**	1,100	**1,200**	1,300	2,000	**2,600**	3,300
Homes and Buildings	**15,100**	18,600	**22,800**	30,400	20,500	**27,600**	27,600
Industrial Decarbonisation, Hydrogen and Carbon Capture	**300**	500	**1,000**	1,800	900	**2,500**	6,800
Low Carbon Transport	**3,100**	7,200	**15,700**	32,300	9,600	**27,700**	74,900
Power	**21,800**	26,700	**32,500**	39,400	33,000	**49,500**	73,800
Reducing Localised Pollution	**300**	400	**400**	500	400	**700**	900
TOTAL	**43,000**	57,000	**77,000**	109,000	71,000	**117,000**	196,000

(excluding Circular Economy, Climate Adaptation and Urban Green Infrastructure)		

Source: WPI Economics analysis

Appendix 1 – Sector and Market Definitions

1.1. Climate Tech Sector

The **Climate Tech Sector** (CT) is divided into fifteen Level 2 sub sectors: Climate Adaptation & Resilience; Climate Data Analysis & FinTech; Climate-Resilient Infrastructure; Decarbonisation of Industry and Manufacturing; District Heat Networks; Energy Storage and Grid Management; Green Materials & Chemistry; Low Carbon; Pollution Prevention & Environmental Monitoring; Remanufacture; Renewable Energy; Sustainable Agriculture & Food Tech; Sustainable Mobility & Transport; Sustainable Water Technologies; and Waste & Resource Recovery. These are in turn divided into fifty-nine Level 3 sub-sectors:

- The Climate Adaptation & Resilience sub-sector is made up of the following: Agriculture; Critical Buildings and Installations (also in CA), and Smart Irrigation Systems (also in CA)
- The Climate Data Analysis & FinTech sub-sector is made up of the following: Blockchain for Sustainable Sourcing; Carbon Finance (also in LCEGS); Climate Risk Assessment (also in CA); and Emissions Tracking
- The Climate-Resilient Infrastructure sub-sector is made up of the following: Engineered or Managed Water Systems (also in G&BI); Green Roofing (also in G&BI); Green Walls (also in G&BI); and Nature-Based Solutions for Water Management (also in G&BI)
- The Decarbonisation of Industry and Manufacturing sub-sector is made up of the following: Carbon Capture & Storage (also in LCEGS); Circular Material Platforms; Industrial Process Electrification; Industry; Low-carbon Materials; Resource Efficiency, and Transport
- The District Heat Networks sub-sector is made up of the following: DHNW Construction & Maintenance; DHNW Energy Centres; and DHNW Operation
- The Energy Storage and Grid Management sub-sector is made up of the following: Additional Energy Sources (also in LCEGS); Alternative Fuels; and Smart Grids & Demand Response
- The Green Materials & Chemistry sub-sector is made up of the following: Bio-based Materials; Material Efficiency; and Non-toxic Chemistry
- The Low Carbon sub-sector is made up of the following: Alternative Fuels; Building Technologies (also in LCEGS); Energy Management (also in LCEGS); and Nuclear Power (also in LCEGS)
- The Pollution Prevention & Environmental Monitoring sub-sector is made up of the following: Air Pollution (also in LCEGS); Contaminated Land (also in LCEGS); Environmental Consultancy (also in LCEGS); Environmental Monitoring (also in LCEGS); Marine Pollution Control (also in LCEGS); and Noise & Vibration Control (also in LCEGS)
- The Remanufacture sub-sector is made up of the following: remanufacture by Independent Remanufacturers (IRs) (also in CE); remanufacture by Original Equipment Manufacturers/remanufacturers (OEMs) (also in CE); and Remanufacture Engineering & Equipment (also in CE)

- The Renewable Energy sub-sector is made up of the following: Air Source Heat Pumps; Biomass (also in LCEGS); Geothermal; Hydroelectric (also in LCEGS); Renewable Consultancy (also in LCEGS); Solar; Wave & Tidal (also in LCEGS); and Wind (also in LCEGS)
- The Sustainable Agriculture & Food Tech sub-sector is made up of the following: Alternative Proteins; Controlled-environment Agriculture; and Precision Agriculture
- The Sustainable Mobility & Transport sub-sector is made up of the following: Active Transport; Alternative Fuel Vehicle; Alternative Fuels; and Low-carbon Shipping & Aviation
- The Sustainable Water Technologies sub-sector is made up of the following: Water Efficiency; and Water Supply & Wastewater Treatment
- The Waste & Resource Recovery sub-sector is made up of the following: Recovery and Recycling; and Waste Management (also in LCEGS)

Climate Adaptation & Resilience (Level 2) activities include three Level 3 sub-sectors, divided into eight Level 4 activity groupings:

- Agriculture (Level 3) includes R&D, Manufacture, Supply, Engineering Services and Other Services associated with the Adaptation and Management of Farm Equipment; Cultivation of New Crops Enabled by Climate Change; and Development of Drought-resistant Seeds
- Critical Buildings and Installations (also in CA) (Level 3) includes Manufacture, Supply, Installation, and Engineering Services associated with Evacuation Alarms for Noxious Gasses; Sustained Heat Increase Early Warning Systems; and Water Level Early Warning Systems
- Smart Irrigation Systems (also in CA) (Level 3) includes R&D, Manufacture, Supply, Installation, Maintenance and Other Services associated with Agriculture and Leisure Areas

Climate Data Analysis & FinTech (Level 2) activities include four Level 3 sub-sectors, divided into twelve Level 4 activity groupings:

- Blockchain for Sustainable Sourcing (Level 3) includes Services associated with Consortium Blockchain; Hybrid Blockchain; Private Blockchain; and Public Blockchain
- Carbon Finance (also in LCEGS) (Level 3) includes R&D, Supply, and Services associated with Carbon Credits Finance & Fund Management; Carbon Credits Journals and Press Periodicals; Carbon Credits Trading; Carbon Market Intelligence & Forecasting; and Projects and Verification
- Climate Risk Assessment (also in CA) (Level 3) includes Services associated with Geospatial Analytics and Predictive Modelling
- Emissions Tracking (Level 3) includes associated with (Level 3) includes Services associated with Corporate Carbon Accounting Platforms; and Product Lifecycle Analysis Tools

Climate-Resilient Infrastructure (Level 2) activities include four Level 3 sub-sectors, divided into ten Level 4 activity groupings:

- Engineered or Managed Water Systems (also in G&BI) (Level 3) includes R&D, Consulting, Training, Engineering Services, Supply, Installation, Maintenance and other services associated with Flood Protection Infrastructure (Levees, Seawalls etc); Stormwater Management Systems (Retention Ponds, Bioswales etc); and Urban Waterways (Canals, Urban Streams)
- Green Roofing (also in G&BI) (Level 3) includes R&D, Consulting, Training, Engineering Services, Supply, Installation, Maintenance and other services associated with: Hard Infrastructure, and Planting Material
- Green Walls (also in G&BI) (Level 3) includes R&D, Consulting, Training, Engineering Services, Supply, Installation, Maintenance and other services associated with: Hard Infrastructure, and Planting Material
- Nature-Based Solutions for Water Management (also in G&BI) (Level 3) includes R&D, Consulting, Training, Engineering Services, Supply, Installation, Maintenance and other services associated with Floodplain rewilding; Permeable green pavements; and Urban Waterfront Redevelopment

Decarbonisation of Industry and Manufacturing (Level 2) activities include seven Level 3 sub-sectors, divided into twenty Level 4 activity groupings:

- Carbon Capture & Storage (also in LCEGS) (Level 3) includes R&D, Manufacture, Consulting, Training, Engineering Services, Supply, Installation, Maintenance and other Services associated with Consultancy; Engineering; Geological Storage; Mineral Storage; Ocean Storage; OxyFuel Combustion; Pipeline; Post-Combustion Capture; Pre-combustion Capture; Project Management; and Ship
- Circular Material Platforms (Level 3) includes Services associated with Industrial symbiosis networks
- Industrial Process Electrification (Level 3) includes R&D, Manufacture, Consulting, Training, Engineering Services, Supply, Installation, Maintenance and other Services associated with Electric kilns and Furnaces
- Industry (Level 3) includes R&D, Manufacture, Consulting, Training, Engineering Services, Supply, Installation, Maintenance and other Services associated with High-efficiency Motors, Pumps, and Drives; and Waste Heat Recovery Systems
- Low-carbon Materials (Level 3) includes R&D, Manufacture, Consulting, Training, Engineering Services, Supply, and other Services associated with Green Steel (hydrogen-based, electric arc); and Low-carbon Cement and Concrete
- Resource Efficiency (Level 3) includes R&D, Software, Consulting, Training, Supply, Installation, and other Services associated with AI-driven process optimization

- Transport (Level 3) includes R&D, Manufacture, Consulting, Training, Software, Engineering Services, Supply, Installation, Maintenance and other Services associated with Electric Drivetrains; and Lightweight Materials (carbon fibre, composites)

District Heat Networks (Level 2) activities include three Level 3 sub-sectors, divided into thirteen Level 4 activity groupings:

- DHNW Construction & Maintenance (Level 3) includes Manufacture, Consulting, Supply, Installation, Maintenance and other Services associated with Consumer Side Heat Network Connections; Grid Connections; Ground Works; Project Consulting Services; and Underground DHNW assets
- DHNW Energy Centres (Level 3) includes Manufacture, Supply, Installation, Maintenance and other Services associated with Energy Centre and Sub-station Buildings; and Energy Centre equipment,
- and DHNW Operation (Level 3) includes R&D, Manufacture, Training, Supply, Installation, Maintenance and other Services associated with DNHW Ownership and Operational Management; DNHW System Energy Measurement and Monitoring; DNHW Supplied Energy Sales; Energy Storage at DNHW Energy Centres; Fuel Supply and Storage at DNHW Energy Centres; and the Heat Supply (Sales of Waste Heat from Industrial and Commercial Processes)

Energy Storage and Grid Management (Level 2) activities include three Level 3 sub-sectors, divided into thirteen Level 4 activity groupings:

- Additional Energy Sources (also in LCEGS) (Level 3) includes R&D, Manufacture, Installation, and other Services associated with Compressed Air in Cylinders and in Caverns; Energy Storage Research; Flywheel Energy Storage; Fuel Cells; Hydraulic Accumulator; Hydrogen Produced by Electrolysis; Molten Salt; Superconducting Magnetic Energy Storages; and Thermal Mass
- Alternative Fuels (Level 3) includes R&D, Manufacture, and Supply associated with Non-EV Batteries
- Smart Grids & Demand Response (Level 3) includes Services associated with AI Demand Response, AI Smart Grid Management, Virtual Power Plants (VPP's)

Green Materials & Chemistry (Level 2) activities include three Level 3 sub-sectors, divided into nine Level 4 activity groupings:

- Bio-based Materials (Level 3) includes R&D, Manufacture, Consulting, Training, Engineering Services, Supply, Installation, Maintenance and other Services associated with Bio Plastic Products; Bio Plastics Manufacturing Equipment; Bio-composite Products; and Bio-composite Manufacturing Equipment
- Material Efficiency (Level 3) includes R&D, Manufacture, Consulting, Training, Engineering Services, Supply, and other Services associated with High-strength Alloys; Lightweight Alloys; and Lightweight Composite Materials

- Non-toxic Chemistry (Level 3) includes R&D, Manufacture, Consulting, Training, Engineering Services, Supply, Installation, Maintenance and other Services associated with Green Catalysts; and Solvent-free Manufacturing

Low Carbon (Level 2) activities include four Level 3 sub-sectors, divided into twenty Level 4 activity groupings:

- Alternative Fuels (Level 3) includes Fuel Production and Fuel Supply & Distribution associated with: Main Stream Bio Fuels; Other Bio Fuels; and Other Fuels
- Building Technologies (also in LCEGS) (Level 3) includes R&D, Manufacture, Installation, Software, and Supply associated with Doors; Insulation and Heat Retention Materials; Monitoring and Control Systems; and Windows
- Energy Management (also in LCEGS) (Level 3) includes R&D, Manufacture, Installation, Maintenance, Training, Software, Supply, and other Services associated with Consulting, Education & Training; Energy Saving Electrical Equipment; Energy Saving Heating & Ventilation Equipment; Energy Saving Lighting Equipment; Gas Supply; and Technologies, Research & Development
- Nuclear Power (also in LCEGS) (Level 3) includes Manufacture, Consulting, Installation, Engineering Services, Supply, Maintenance, and other Services associated with Commissioning Engineering Services; Construction of Plant & Equipment; Manufacture of Cooling Equipment for the Nuclear Power Industry; Nuclear Power Plant Operations; Nuclear Safety Engineering Services; Nuclear Science Services; and Sampling and Testing Services

Pollution Prevention & Environmental Monitoring (Level 2) activities include six Level 3 sub-sectors, divided into twenty-one Level 4 activity groupings:

- Air Pollution (also in LCEGS) (Level 3) includes R&D, Manufacture, Consulting, Installation, Engineering Services, Supply, Maintenance, and other Services associated with Dust and Particulate Control; Indoor Air Quality; Industrial Ambient (Workplace) Air Control; Industrial Emission Control; Industrial/Mobile Source Emission Control; and Process Engineering Air Pollution
- Contaminated Land (also in LCEGS) (Level 3) includes R&D, Manufacture, Consulting, Installation, Engineering Services, Supply, Maintenance, and other Services associated with the Decommissioning of Nuclear Sites; and Remediation and Land reclamation
- Environmental Consultancy (also in LCEGS) (Level 3) includes Consulting, Training and Services associated with Management Services in the Environmental Sector; Manpower and Executive Recruitment; Specialist Consultancy to the Environmental Sector; and Training and Education
- Environmental Monitoring (also in LCEGS) (Level 3) includes R&D, Manufacture, Software, Supply, Maintenance, and other Services associated with Environmental Analysis; Environmental Monitoring; and Instrumentation Equipment and Software
- Marine Pollution Control (also in LCEGS) (Level 3) includes R&D, Manufacture, Consulting, Training, Supply, Maintenance, and other Services

associated with Marine Pollution Abatement; Marine Pollution Specialist Consulting and Training; and Technologies, Research & Development

- Noise & Vibration Control (also in LCEGS) (Level 3) includes R&D, Manufacture, Consulting, Installation, Training, Supply, Maintenance, and other Services associated with Noise & Vibration Consultancy, Training & Education Services; Noise Abatement; and Technologies, Research & Development

Remanufacture (Level 2) activities include three Level 3 sub-sectors, divided into thirty Level 4 activity groupings:

- Independent Remanufacturers (IRs) (also in CE) (Level 3) includes Core Process/Activity, Engineering, Consultancy and Training, Equipment, Other Ancillary Services, and Software associated with remanufacturing of Clothing and Shoes; Construction Materials and/or Buildings; Electrical and Electronic Equipment; Furniture; Household Textiles; Machinery and Equipment; Non-electrical Games, Toys and Sporting Goods; Packaging; Vehicles; and Other Goods
- Original Equipment Manufacturers/remanufacturers (OEMs) (also in CE) (Level 3) includes Core Process/Activity, Engineering, Consultancy and Training, Equipment, Other Ancillary Services, and Software associated with remanufacturing of Clothing and Shoes; Construction Materials and/or Buildings; Electrical and Electronic Equipment; Furniture; Household Textiles; Machinery and Equipment; Non-electrical Games, Toys and Sporting Goods; Packaging; Vehicles; and Other Goods
- Remanufacture Engineering & Equipment (also in CE) (Level 3) includes Core Process/Activity, Engineering, Consultancy and Training, Equipment, Other Ancillary Services, and Software associated with remanufacturing of Clothing and Shoes; Construction Materials and/or Buildings; Electrical and Electronic Equipment; Furniture; Household Textiles; Machinery and Equipment; Non-electrical Games, Toys and Sporting Goods; Packaging; Vehicles; and Other Goods

Renewable Energy (Level 2) activities include eight Level 3 sub-sectors, divided into thirty-three Level 4 activity groupings:

- Air Source Heat Pumps (Level 3) includes R&D, Manufacture, Consulting, Engineering Services, Installation, Training, Supply, Maintenance, and other Services associated with Commercial / Large Scale; Community Based; and Domestic / Small Scale installations
- Biomass (also in LCEGS) (Level 3) includes Manufacture, Consulting, Engineering Services, Installation, Training, Supply, Software, and other Services associated with Biomass Energy Systems; Furnace Systems; Boilers and related Systems; Education and Technical Consulting; and Manufacturing of Boilers and Related Systems
- Geothermal (Level 3) includes R&D, Manufacture, Consulting, Engineering Services, Installation, Training, Supply, Maintenance, and other Services associated with Ground Source Heat Pumps; Specialist Systems & Equipment; and Water Source Heat Pumps

- Hydroelectric (also in LCEGS) (Level 3) includes Manufacture, Installation, Training, Supply, Maintenance, and other Services associated with Dams & Structures; Electricity Supply; Pumping & Lubrication; and Turbines
- Renewable Consultancy (also in LCEGS) (Level 3) includes Consulting, and other Services associated with Consultancy Services; and Legal Services
- Solar (Level 3) includes R&D, Manufacture, Installation, and Supply associated with Chemicals; Concentrated Solar Power (CSP) Equipment; Other Related Equipment and Chemicals; Photovoltaic Cells; Research & Development; Solar Systems & Equipment; and Solar Up Draft Equipment
- Wave & Tidal (also in LCEGS) (Level 3) includes Engineering Services, Manufacture, Installation, Supply, Maintenance, and other Services associated with Assessment and Measurement; Ebb & Flood; Other General Services; Pumps & Equipment; Turbine and Generation; and Two Basin Schemes
- Wind (also in LCEGS) (Level 3) includes R&D, Manufacture, Consulting, Supply, Maintenance, and other Services associated with Large Wind Turbines; Small Wind Turbines; and Wind Farm Systems

Sustainable Agriculture & Food Tech (Level 2) activities include three Level 3 sub-sectors, divided into nine Level 4 activity groupings:

- Alternative Proteins (Level 3) includes R&D, Manufacture, Consulting, Training, Engineering Services, Supply, Installation, Maintenance and other Services associated with Cultivated Meat Cell-based Lab-grown Meat; Insect Protein; and Plant Based Alternative Proteins
- Controlled-environment Agriculture (Level 3) includes R&D, Manufacture, Consulting, Training, Engineering Services, Software, Supply, Installation, Maintenance and other Services associated with Aeroponics Equipment; Aquaponics Equipment; Hydroponics Equipment; and Vertical Farm Equipment
- Precision Agriculture (Level 3) includes R&D, Manufacture, Consulting, Training, Engineering Services, Software, Supply, Installation, Maintenance and other Services associated with Arable Farming; and Livestock Farming

Sustainable Mobility & Transport (Level 2) activities include four Level 3 sub-sectors, divided into ten Level 4 activity groupings:

- Active Transport (Level 3) includes R&D, Manufacture, Consulting, Training, Engineering Services, Software, Supply, Maintenance and other Services associated with Bicycles; and E-Bikes & E-Scooters
- Alternative Fuel Vehicle (Level 3) includes R&D, Manufacture, Training, Engineering Services, Fuel Production, Fuel Supply & Distribution, Software, Supply, Maintenance and other Services associated with Alternative Fuels (main Stream) for Vehicles Only*; Electric Vehicles; and Other Fuels and Vehicles (note: * Also in LCEGS at level 3)
- Alternative Fuels (Level 3) includes Fuel Production, Fuel Supply & Distribution, R&D, Manufacture, Supply, and Installation associated with Bio

Fuels Alternative for Vehicles Only*; and EV Batteries (note: * Also in LCEGS at level 3)

- Low-carbon Shipping & Aviation (Level 3) includes R&D, Manufacture, Consulting, Training, Engineering Services, Fuel Supply & Distribution, Software, Supply, Installation, Maintenance and other Services associated with Ammonia-powered Vessels; Hydrogen-powered Vessels; and Sustainable Aviation Fuel (SAF)

Sustainable Water Technologies (Level 2) activities include two Level 3 sub-sectors, divided into six Level 4 activity groupings:

- Water Efficiency (Level 3) includes R&D, Manufacture, Consulting, Training, Engineering Services, Software, Supply, Installation, Maintenance and other Services associated with Smart Irrigation Systems; and Water Treatment and Distribution
- Water Supply & Wastewater Treatment (Level 3) includes R&D, Manufacture, Consulting, Training, Engineering Services, Supply, Installation, Maintenance and other Services associated with Consulting, Education & Training; Engineering; Technology, Research & Development; and Water Treatment and Distribution

Waste & Resource Recovery (Level 2) activities include two Level 3 sub-sectors, divided into twenty-three Level 4 activity groupings:

- Recovery and Recycling (Level 3) includes R&D, Manufacture, Consulting, Training, Engineering Services, Software, Supply, Installation, Maintenance and other Services associated with Automobile Recycling*; Coal Combustion Products Stock Processing*; Composting Feed Stock Processing*; Construction and Demolition Debris Stock Processing*; Consultancy, Training and Education*; Electronics & Related Stock Processing*; Engineering & Equipment*; Glass Stock Processing*; Household Electrical Goods Stock Processing*; Metals Recycling Stock Processing*; Oil Stock Processing*; Paper Feed Stock Processing*; Plastics Stock Processing*; Rubber Products Stock Processing*; Technologies, Research & Development*; Textiles Feed Stock Processing*; Waste Collection*; Water Recycling Systems"; and Wood Stock Processing* (note: * Also in LCEGS at level 3 and “ also in Circular Economy at Level 4)
- Waste Management (also in LCEGS) (Level 3) includes R&D, Manufacture, Consulting, Training, Engineering Services, Supply, Installation, Maintenance and other Services associated with Construction & Operation of Waste Treatment Facilities; Consultancy, Training and Education; Equipment for Waste Treatment; and Technologies, Research & Development

1.2. Circular Economy

The **Circular Economy** (CE) is divided into eight Level 2 sub sectors: Design, Digital Infrastructure & Information Systems, Recovery and Recycling, Redistribute, Remanufacture, Rental, Repair and Reuse. These are in turn divided into thirty Level 3 sub-sectors:

- The Design sub-sector is made up of the following: Design for Durability, Design for Recycling and Composting, Design for Reduced Material Footprint, Design for Re-use & Repair, Design for Sustainable Food Products, and Design with Secondary Material
- The Digital Infrastructure & Information Systems sub-sector is made up of the following: Governance, Policy & Knowledge Infrastructure, Market & Value Exchange Platforms, Measurement, Reporting & Decision Support, and Product & Material Lifecycle Systems
- The Recovery and Recycling sub-sector is made up of the following: Composting Feed Stock Processing, Construction & Operation of Waste Treatment Facilities, Recovery and Recycling Collection, Recovery and Recycling Equipment and Recovery and Recycling Process
- The Redistribute sub-sector is made up of the following: First/Last Mile Logistics for Redistribution, Food Redistribution, and Reverse Logistics and Collection for Reuse
- The Remanufacture sub-sector is made up of the following: Engineering & Equipment for Remanufacture, Independent Remanufacturers (IRs), and Original Equipment Manufacturers/Remanufacturers (OEMs) including Contracted
- The Rental sub-sector is made up of the following: Leasing and Rental
- The Repair sub-sector is made up of the following: Engineering & Equipment for Repair, Maintenance, Service, and Upgrade and Alteration
- The Reuse sub-sector is made up of the following: Collection, Sanitation and Reuse (CSR, e.g. Milk Bottles), Repurpose, and Second Hand Sales

Design (Level 2) activities include six Level 3 sub-sectors, divided into ten Level 4 activity groupings:

- Design for Durability (Level 3) includes Core Process/activity; Engineering, Consultancy and Training; Equipment; Software; and Other Ancillary Services for Clothing and Shoes; Construction Materials and/or Buildings; Electrical and Electronic Equipment; Furniture; Household Textiles; Machinery and Equipment; Non-electrical Games, Toys and Sporting Goods; Packaging; Vehicles; and Other Goods
- Design for Recycling and Composting (Level 3) includes Core Process/activity; Engineering, Consultancy and Training; Equipment; Software; and Other Ancillary Services for Clothing and Shoes; Construction Materials and/or Buildings; Electrical and Electronic Equipment; Furniture; Household Textiles; Machinery and Equipment; Non-electrical Games, Toys and Sporting Goods; Packaging; Vehicles; and Other Goods
- Design for Reduced Material Footprint (Level 3) includes Core Process/activity; Engineering, Consultancy and Training; Equipment; Software; and Other Ancillary Services for Clothing and Shoes; Construction Materials and/or Buildings; Electrical and Electronic Equipment; Furniture;

Household Textiles; Machinery and Equipment; Non-electrical Games, Toys and Sporting Goods; Packaging; Vehicles; and Other Goods

- Design for Re-use & Repair (Level 3) includes Core Process/activity; Engineering, Consultancy and Training; Equipment; Software; and Other Ancillary Services for Clothing and Shoes; Construction Materials and/or Buildings; Electrical and Electronic Equipment; Furniture; Household Textiles; Machinery and Equipment; Non-electrical Games, Toys and Sporting Goods; Packaging; Vehicles; and Other Goods
- Design for Sustainable Food Products (Level 3) includes Core Process/activity; Engineering, Consultancy and Training; Equipment; Software; and Other Ancillary Services for Food Services and Caterers; and Retail Food Products
- Design with Secondary Material (Level 3) includes Core Process/activity; Engineering, Consultancy and Training; Equipment; Software; and Other Ancillary Services for Clothing and Shoes; Construction Materials and/or Buildings; Electrical and Electronic Equipment; Furniture; Household Textiles; Machinery and Equipment; Non-electrical Games, Toys and Sporting Goods; Packaging; Vehicles; and Other Goods

Digital Infrastructure & Information Systems (Level 2) activities include four Level 3 sub-sectors, divided into fourteen Level 4 activity groupings:

- Governance, Policy & Knowledge Infrastructure (Level 3) includes Core Process/activity; Engineering, Consultancy and Training; Equipment; Software; and Other Ancillary Services for Open Knowledge Platforms and Regulatory Tech (“RegTech”)
- Market & Value Exchange Platforms (Level 3) include Core Process/activity; Engineering, Consultancy and Training; Equipment; Software; and Other Ancillary Services for Circular Procurement Systems; Industrial Symbiosis Platforms; Product-as-a-Service Platforms (PaaS); and Secondary Marketplaces
- Measurement, Reporting & Decision Support (Level 3) includes Core Process/activity; Engineering, Consultancy and Training; Equipment; Software; and Other Ancillary Services for Certification & Compliance Systems; Circularity Metrics Dashboards; Decision Support Systems (DSS); and life Cycle Assessment (LCA) & Impact Tools
- Product & Material Lifecycle Systems (Level 3) includes Core Process/activity; Engineering, Consultancy and Training; Equipment; Software; and Other Ancillary Services for Digital Product Passports (DPPs) and/or Materials Passports; Material Flow Management; Product Lifecycle Management (PLM) Systems; and Reverse Logistics & Returns Platforms

Recovery and Recycling (Level 2) activities include five Level 3 sub-sectors, divided into twenty-three Level 4 activity groupings:

- Composting Feed Stock Processing (Level 3) includes Recycling & Resale of Compost in the form of Bulk Supply to the Agricultural Sector; and Packing & Supply to the Domestic Market

- Construction & Operation of Waste Treatment Facilities (Level 3) includes Manufacture, Maintenance and Services associated with Anaerobic Digestion Waste Treatment Facilities and Composting Waste Treatment Facilities
- Recovery and Recycling Collection (Level 3) includes the Manufacture; Supply; Installation; Maintenance; Recycling & Resale; and other Services associated with Waste Collection of Hazardous Solid and Liquid Wastes; Household Waste; Industrial Non-hazardous Waste; Presorted Household Waste; Management of Construction and Demolition Waste; Supply of Pretreated Recyclates; Sorted Recyclates; Treatment of Hazardous Waste; Treatment of Waste Prior to Landfill/Incineration; and Vitrification
- Recovery and Recycling Equipment (Level 3) includes Manufacture, Supply, Installation, Engineering Services, Maintenance and Training Services for Engineering and Equipment for Recycling Automotive Parts; Electronics; Glass; Paper; Plastics; Textiles; and Tyres
- Recovery and Recycling Process (Level 3) includes the Recycling & Resale of Automobiles; Coal Combustion Products; Construction and Demolition Debris; Electronics; Furnace Ash; Glass; Household Electrical Goods; Metals; Oil; Paper; Plastics; Surplus Foods; Rubber; Textiles and Wood. It also includes R&D for Bio-based Systems; Bleaching Systems; Metal Recovery Systems; Pyrolysis Systems; New Recyclable Materials; Waste Recycling Processes and Waste Recovery Systems. It also includes Core Process/activity; Engineering, Consultancy and Training; Equipment; Software; and Other Ancillary Services for Black and Grey Water Recycling Systems and Resource Recovery from Waste Water. It also includes Consultancy, Training and Education.

Redistribute (Level 2) activities include three Level 3 sub-sectors, divided into twenty-two Level 4 activity groupings:

- First/Last Mile Logistics for Redistribution (Level 3) includes the Core Process/activity; Engineering, Consultancy and Training; Equipment; Software; and Other Ancillary Services for Clothing and Shoes; Construction Materials and/or Buildings; Electrical and Electronic Equipment; Furniture; Household Textiles; Machinery and Equipment; Non-electrical Games, Toys and Sporting Goods; Packaging; Vehicles; and Other Goods
- Food Redistribution (Level 3) includes the Core Process/activity; Engineering, Consultancy and Training; Equipment; Software; and Other Ancillary Services for food waste reduction at food Services and caterers; and food waste reduction in retail
- Reverse Logistics and Collection for Reuse (Level 3) includes the Core Process/activity; Engineering, Consultancy and Training; Equipment; Software; and Other Ancillary Services for Clothing and Shoes; Construction Materials and/or Buildings; Electrical and Electronic Equipment; Furniture; Household Textiles; Machinery and Equipment; Non-electrical Games, Toys and Sporting Goods; Packaging; Vehicles; and Other Goods

Remanufacture (Level 2) activities include three Level 3 sub-sectors, divided into thirty Level 4 activity groupings:

- Engineering & Equipment for Remanufacture (Level 3) includes the Core Process/activity; Engineering, Consultancy and Training; Equipment; Software; and Other Ancillary Services for Clothing and Shoes; Construction Materials and/or Buildings; Electrical and Electronic Equipment; Furniture; Household Textiles; Machinery and Equipment; Non-electrical Games, Toys and Sporting Goods; Packaging; Vehicles; and Other Goods
- Independent Remanufacturers (IRs) (Level 3) includes the Core Process/activity; Engineering, Consultancy and Training; Equipment; Software; and Other Ancillary Services for Clothing and Shoes; Construction Materials and/or Buildings; Electrical and Electronic Equipment; Furniture; Household Textiles; Machinery and Equipment; Non-electrical Games, Toys and Sporting Goods; Packaging; Vehicles; and Other Goods
- Original Equipment Manufacturers/Remanufacturers (OEMs) including Contracted (Level 3) includes the Core Process/activity; Engineering, Consultancy and Training; Equipment; Software; and Other Ancillary Services for Clothing and Shoes; Construction Materials and/or Buildings; Electrical and Electronic Equipment; Furniture; Household Textiles; Machinery and Equipment; Non-electrical Games, Toys and Sporting Goods; Packaging; Vehicles; and Other Goods

Rental (Level 2) activities include two Level 3 sub-sectors, divided into twenty Level 4 activity groupings:

- Leasing (Level 3) includes Core Process/activity; Engineering, Consultancy and Training; Equipment; Software; and Other Ancillary Services for Clothing and Shoes; Construction Materials and/or Buildings; Electrical and Electronic Equipment; Furniture; Household Textiles; Machinery and Equipment; Non-electrical Games, Toys and Sporting Goods; Packaging; Vehicles; and Other Goods
- Rental (Level 3) includes the Core Process/activity; Engineering, Consultancy and Training; Equipment; Software; and Other Ancillary Services for Clothing and Shoes; Construction Materials and/or Buildings; Electrical and Electronic Equipment; Furniture; Household Textiles; Machinery and Equipment; Non-electrical Games, Toys and Sporting Goods; Packaging; Vehicles; and Other Goods

Repair (Level 2) activities include four Level 3 sub-sectors, divided into forty Level 4 activity groupings:

- Engineering & Equipment for Repair (Level 3) includes Core Process/activity; Engineering, Consultancy and Training; Equipment; Software; and Other Ancillary Services for Clothing and Shoes; Construction Materials and/or Buildings; Electrical and Electronic Equipment; Furniture; Household Textiles; Machinery and Equipment; Non-electrical Games, Toys and Sporting Goods; Packaging; Vehicles; and Other Goods
- Maintenance (Level 3) includes the Core Process/activity; Engineering, Consultancy and Training; Equipment; Software; and Other Ancillary Services for Clothing and Shoes; Construction Materials and/or Buildings; Electrical and Electronic Equipment; Furniture; Household Textiles; Machinery and

Equipment; Non-electrical Games, Toys and Sporting Goods; Packaging; Vehicles; and Other Goods

- Service (Level 3) includes the Core Process/activity; Engineering, Consultancy and Training; Equipment; Software; and Other Ancillary Services for Clothing and Shoes; Construction Materials and/or Buildings; Electrical and Electronic Equipment; Furniture; Household Textiles; Machinery and Equipment; Non-electrical Games, Toys and Sporting Goods; Packaging; Vehicles; and Other Goods
- Upgrade and Alteration (Level 3) includes the Core Process/activity; Engineering, Consultancy and Training; Equipment; Software; and Other Ancillary Services for Clothing and Shoes; Construction Materials and/or Buildings; Electrical and Electronic Equipment; Furniture; Household Textiles; Machinery and Equipment; Non-electrical Games, Toys and Sporting Goods; Packaging; Vehicles; and Other Goods

Reuse (Level 2) activities include three Level 3 sub-sectors, divided into thirty Level 4 activity groupings:

- Collection, Sanitation and Reuse (CSR, e.g. Milk Bottles) (Level 3) includes the Core Process/activity; Engineering, Consultancy and Training; Equipment; Software; and Other Ancillary Services for Clothing and Shoes; Construction Materials and/or Buildings; Electrical and Electronic Equipment; Furniture; Household Textiles; Machinery and Equipment; Non-electrical Games, Toys and Sporting Goods; Packaging; Vehicles; and Other Goods
- Repurpose (Level 3) includes Core Process/activity; Engineering, Consultancy and Training; Equipment; Software; and Other Ancillary Services for Clothing and Shoes; Construction Materials and/or Buildings; Electrical and Electronic Equipment; Furniture; Household Textiles; Machinery and Equipment; Non-electrical Games, Toys and Sporting Goods; Packaging; Vehicles; and Other Goods
- Second Hand Sales (Level 3) includes the Core Process/activity; Engineering, Consultancy and Training; Equipment; Software; and Other Ancillary Services for Clothing and Shoes; Construction Materials and/or Buildings; Electrical and Electronic Equipment; Furniture; Household Textiles; Machinery and Equipment; Non-electrical Games, Toys and Sporting Goods; Packaging; Vehicles; and Other Goods

1.3. Green and Blur Infrastructure Market

The **Green and Blue Infrastructure** market (G&BI) is divided into three Level 2 sub sectors: Green Infrastructure, Blue Infrastructure and Engagement Facilitation. These are in turn divided into fifteen Level 3 sub-sectors:

- The Green Infrastructure sub-sector is made up of the following: Agricultural Land, Forest and Woodland, Green Linkages, Green Roofing, and Green Walls

- The Blue Infrastructure sub-sector is made up of the following: Engineered or Managed Water Systems, Freshwater Systems (Fish ladders etc), Nature-Based Solutions for Water Management, Water Treatment and Distribution (WT&D), WT&D Consulting, Education & Training, WT&D Engineering, and WT&D Technology, R&D
- The Engagement Facilitation sub-sector is made up of the following: Community Activities, Engagement Support Services, and Social Prescription & Self-Initiated Health Activities

Green Infrastructure (Level 2) activities include five Level 3 sub-sectors, divided into eighteen Level 4 activity groupings:

- Agricultural Land includes both grassland and cropland farmland, alongside city farms, beehives, allotments etc.
- Forest and Woodland Includes ancient woodland, secondary woodland and timber plantations
- Green Linkages includes green spaces which are not agricultural land, forest or woodland, or green roofs or walls and include country parks, hedgerows, regionally important geological sites, sites of special scientific interest (SSSI), cemeteries, golf courses and street greenery.
- Green Roofing includes both hard infrastructure and planting material
- Green Walls includes both hard infrastructure and planting material

Blue Infrastructure (Level 2) activities include seven Level 3 sub-sectors, divided into forty-five Level 4 activity groupings:

- Engineered or Managed Water Systems includes urban waterways such as canals and urban streams, stormwater management systems such as retention ponds and bioswales, and flood protection infrastructure such as levees and seawalls
- Fresh Water Systems (Fish ladders etc.) includes lakes/reservoirs, ponds, streams and rivers, wetlands and peatlands
- Nature Based Solutions for Water Management includes permeable green pavements, floodplain rewilding, and urban waterfront redevelopment
- Water Treatment and Distribution (WT&D) includes all aspects of water treatment such as activated sludge systems, biological odour and corrosion control, anaerobic waste water treatment systems and operations etc., alongside demand management and leakage control
- WT&D Consulting, Education & Training includes training for engineering and management, specialist consultancy and water treatment publications
- WT&D Engineering includes design services, field engineering and fitting and construction services

- WT&D Technology, R&D includes biocides and anaerobic and aerobic wastewater treatment technologies, alongside R&D for black/grey water treatment, industrial water management and water purification

Engagement Facilitation (Level 2) activities include three Level 3 sub-sectors, divided into seven Level 4 activity groupings:

- Community Activities include community events such as live music, fetes, farmers markets etc., exercise and playground spaces such as children's playgrounds, adult exercise equipment and intergeneration play spaces, and volunteering & stewardship which as conservation groups, litter-picking etc.
- Engagement Support Services include engagement organisation such as funding and resourcing and partnership network services, and training and capacity building through facilitator and volunteer training
- Social Prescription and Self-initiated Health Activities including outdoor mental health and wellbeing programmes such as forest bathing and outdoor physical activity such as outdoor gym session and walking groups

Level 3 sub-sectors are provided below in their Level 2 groupings:

Green Infrastructure

Agricultural Land (Level 3) sub-sector Includes R&D, Consulting, Training, Engineering Services, Supply, Installation, Maintenance and other services associated with: Cropland; Grassland; Urban Farming (City Farms, City Beehives, Allotments, etc.)

Forest and Woodland (Level 3) sub-sector includes R&D, Consulting, Training, Engineering Services, Supply, Installation, Maintenance and other services associated with: Ancient Woodland, Secondary Woodland and Timber Plantations

Green Linkages (Level 3) sub-sector includes R&D, Consulting, Training, Engineering Services, Supply, Installation, Maintenance and other services associated with: Cemeteries, Country Parks, Designated Wildlife Sites, Golf Courses, Hedgerows, Regionally Important Geological Sites, Sites of Special Scientific Interest (SSSI), and Street Greenery (e.g. Trees, Planters)

Green Roofing (Level 3) sub-sector includes R&D, Consulting, Training, Engineering Services, Supply, Installation, Maintenance and other services associated with: Hard Infrastructure, and Planting Material

Green Walls (Level 3) sub-sector includes R&D, Consulting, Training, Engineering Services, Supply, Installation, Maintenance and other services associated with: Hard Infrastructure, and Planting Material

Blue Infrastructure

Engineered or Managed Water Systems (Level 3) sub-sector includes R&D, Manufacture, Engineering Services, Supply, Installation, Maintenance, Consulting, Training, and other services associated with Flood Protection Infrastructure (Levees, Seawalls etc.), Stormwater Management Systems (Retention Ponds, Bioswales etc.), and Urban Waterways (Canals, Urban Streams)

Fresh Water Systems (Fish ladders etc.) (Level 3) sub-sector includes R&D, Engineering Services, Supply, Installation, Maintenance, Consulting, Training, and other services associated with Lakes/Reservoirs, Ponds, Streams & Rivers, and Wetlands & Peatlands

Nature Based Solutions for Water Management (Level 3) sub-sector includes R&D, Manufacture, Supply, Installation, Maintenance, Consulting, Training, and other services associated with Floodplain rewilding, Permeable green pavements, and Urban Waterfront Redevelopment

Water Treatment and Distribution (WT&D) (Level 3) sub-sector includes Manufacture, Engineering Services, Supply, Installation, Maintenance, and other services associated with Activated Sludge Systems, Anaerobic and Aerobic Waste Water Treatment Systems & Operations, Biological Odour and Corrosion Control, Compliance with National and Local Directives, Demand Management and Leakage Reduction, Effluent Treatment Plant, Filters, MBBR (Moving bed Bio film reactor), Microbial Products for Applications in Plumbing and Sewer Line Maintenance, Oil-Water separation, Planning & Project Management, Rotating Biological Contactors, Screens, Sequencing Batch Reactors, Storm and Grey Water Treatment, Water and Waste Water Engineering and Water Disinfection

WT&D Consulting, Education & Training (Level 3) sub-sector includes Engineering Services, Consulting, Training and other services associated with: Engineering Training Services, Specialist Consultancy Water Systems Engineering, Specialist Consultancy Water Systems Management, Specialist Consultancy Water Treatment, Water Management Training Services, and Water Treatment Publications

WT&D Engineering (Level 3) sub-sector includes Engineering Services, Maintenance and other services associated with: Engineering Design Services, Fabrication and Welding Services for the Water Industry, Field Engineering Maintenance Pipes & Valves, Field Engineering Procurement Services (out sourced), and Fitting & Construction Services

WT&D Technology, R&D (Level 3) sub-sector includes R&D associated with: Anaerobic and Aerobic Waste Water Treatment Technologies, Biocides, MBBR (Moving bed Bio film reactor), Black/Grey Water Treatment, Industrial Water Management, and Water Purification

Engagement Facilitation

Community Activities (Level 3) sub-sector includes facilitation associated with Community Events including Entertainment (e.g. Live Music) and Gatherings (e.g. Fete's, Farmers Markets etc.); Exercise and Playground Spaces including Adult Exercise Areas/Equipment, Children's Playgrounds and Intergenerational Play Spaces; and Volunteering & Stewardship including Conservation and Environmental Projects and General Operations (Litter Picking etc.)

Engagement Support Services (Level 3) sub-sector includes Services and Training associated with Engagement Organisation including Funding & Resources, Monitoring & Evaluation (health impact assessment, wellbeing surveys, usage data etc.), Partnership Network Services, and Prescribers & Referrers; and Training & Capacity Building including Facilitator Training & Accreditation, and Volunteer Training

Social Prescription and Self-initiated Health Activities (Level 3) sub-sector includes facilitation associated with including Outdoor Mental Health & Wellbeing Programs such as Organised Mindfulness, Forest Bathing etc., and Outdoor Physical Activity including Outdoor Gym/Yoga/Fitness Sessions, and Walking/Running/Cycling/Swimming Groups

1.4. Climate Adaptation Market

The **Climate Adaptation** (CA) market is divided into twelve Level 2 sub-sectors – Agriculture & Forestry, Built Environment, Climate Data & Analytics, Disaster Preparedness, Energy, Health, Information Communication Technology (ICT), Natural Environment, Professional Services, Transport, Waste, and Water. These are in turn divided into forty-eight Level 2 sub-sectors:

- The Agriculture & Forestry sub-sector is made up of the following: Agriculture and Forestry
- The Built Environment sub-sector is made up of the following: Construction & Retrofit, Energy Efficiency, Technical Services, and Water Efficiency
- The Climate Data & Analysis sub-sector is made up of the following: Climate Risk Assessment
- The Disaster Preparedness sub-sector is made up of the following: Coastal, Critical Buildings & Installations, Emergency Response, Flood Barrier & Water Ingress Equipment
- The Energy sub-sector is made up of the following: Energy Infrastructure, and Energy Systems
- The Health sub-sector is made up of the following: Disease Monitoring, Energy Efficient Cooling of Hospitals, Financial Instruments, Green & Blue Spaces, and Health Education Services
- The Information Communication Technology (ICT) sub-sector is made up of the following: Communications, Control Systems, Data Management, IT Installations, Information Systems, Networks, RF Comms, Transactional Management, and Voice Communications
- The Natural Environment sub-sector is made up of the following: Climate Change Management, Coast, and Land
- The Professional Services sub-sector is made up of the following: Architectural Services, Consulting, Finance, Insurance Services, and Risk Management & Business Continuity
- The Transport sub-sector is made up of the following: Airport, Bridge, Rail, Road, Transport Services, Vegetation Management, and Waterways
- The Waste sub-sector is made up of the following: Recovery & Recycling, and Waste Management
- The Water sub-sector is made up of the following: Smart Irrigation Systems, Sustainable Drainage & Waste Management, Waste Water Treatment, and Water Infrastructure

Agriculture & Forestry (Level 2) activities include two Level 3 sub-sectors, divided into twelve Level 4 activity groupings:

- Agriculture (Level 3) includes manufacture, R&D, engineering services, supply, consulting, education & training and other services associated with the adaptation and management of farm equipment, crop and soil management, the cultivation of new crops enabled by climate change and the development of drought resistant seeds and pest suppression
- Forestry (Level 3) includes R&D, education & training and other services associated with forestry services, improved new species and improvements in forestry management

Built Environment (Level 2) activities include four Level 3 sub-sectors, divided into eighteen Level 4 activity groupings:

- Construction and Retrofit (Level 3) include manufacture, supply, engineering services and other services associated with urban redesign and re-engineering, the manufacture and supply of retrofit engineering equipment and materials, retrofit building services and adaptive civil engineering services
- Energy Efficiency (Level 3) includes manufacture, supply, and installation associated with the energy efficient adaptation of buildings, including cooling, green roofing and thermal and reflective roofing.
- Technical Services (Level 3) includes education & training and other services associated with assessing green spaces and the upgrading of qualifications and training
- Water Efficiency (Level 3) includes engineering services associated with water use reduction technologies within the built environment

Climate Data & Analysis (Level 2) activities include one Level 3 sub-sector, and one Level 4 activity grouping:

- Climate Risk Assessment (Level 3) includes services associated with Geospatial Analytics and Predictive Modelling

Disaster Preparedness (Level 2) activities include four Level 3 sub-sectors, divided into nine Level 4 activity groupings:

- Coastal (Level 3) includes engineering services associated with coastal defenses and coastal protection
- Critical Buildings and Installations (Level 3) include manufacturing, supply, installation, and engineering services associated with evacuation alarms for noxious gases, sustained heat increase early warning systems, and water level early warning systems
- Emergency Response (Level 3) includes supply, installation and other services associated with evacuation/relocation of exposed settlements, flooding emergency response such as temporary flood barriers and non-flooding emergency response such as firebreak operations
- Flood Barrier and Water Ingress Equipment (Level 3) includes the manufacture and supply of sand Bags

Energy (Level 2) activities include two Level 3 sub-sectors, divided into eleven Level 4 activity groupings:

- Energy Infrastructure (Level 3) includes the engineering services associated with increasing dam heights for hydropower stations, increasing the robustness of transmission grids and underground cable installation
- Energy Systems (Level 3) includes the R&D, manufacture, supply, installation engineering services, consulting, education & training and other services associated with embedding climate change risk in energy infrastructure planning, energy efficient ventilation systems, general supercooling equipment (multi-sector, includes vehicles, manufacturing equipment, etc.), investment in generators with minimal cooling water requirements, energy efficient ventilation systems, new distribution systems and new transmission systems

Health (Level 2) activities include five Level 3 sub-sectors, divided into nine Level 4 activity groupings:

- Disease Monitoring (Level 3) includes research & planning for disease monitoring
- Energy Efficient Cooling of Hospitals (Level 3) includes manufacture, supply, installation and engineering services associated with the products and services associated with low energy cooling of hospitals.
- Financial Instruments (Level 3) includes the services associated with specialist financial instruments for the health sector
- Green and Blue Spaces (Level 3) includes the R&D and services associated with the R&D and development of green & blue spaces for health
- Health Education Services (Level 3) includes specialist health education services

Information & Communication Technology (Level 2) activities include nine Level 3 sub-sectors, divided into seventeen Level 4 activity groupings:

- Communications (Level 3) includes the design, manufacture, supply and installation associated with mobile devices and supervisory control and data acquisition (SCADA) systems
- Control Systems (Level 3) includes the design, manufacture, and installation associated with ruggedized control systems
- Data Management (Level 3) includes the supply and services associated with data centres
- Information & Communication Technology (ICT) Installations (Level 3) includes the design, manufacturing, installation and engineering services associated with ICT static installations
- Information Systems (Level 3) includes the design, manufacture, and installation associated with customer/passenger information systems
- Networks (Level 3) include the supply, engineering services and other services associated with cable systems, data, fibre, ICT networks, mobile systems, and radio frequency

- RF Comms (Level 3) includes the engineering services associated with antenna and masts
- Transaction Management (Level 3) includes the design, manufacture, and installation associated with ATM machines and ticketing and billing systems
- Voice Communications (Level 3) includes the services associated with call centres

Natural Environment (Level 2) activities include three Level 3 sub-sectors, divided into eight Level 4 activity groupings:

- Climate Change Management (Level 3) includes services associated with earth observation services and weather station services
- Coast (Level 3) includes the supply of retrofit engineering equipment
- Land (Level 3) includes the manufacture, supply, engineering services and other services associated with the maintenance of green areas, planting trees, survey and mapping for environment and conservation, and wildfire preparation

Professional Services (Level 2) activities include five Level 3 sub-sectors, divided into thirty-two Level 4 activity groupings:

- Architectural Services (Level 3) includes engineering services and other services associated with architectural design, engineering, and project management services
- Consulting (Level 3) includes consulting and other services associated with agriculture, built environment, energy, forestry, health, ICT, natural environment, transport, water, and waste
- Finance (Level 3) includes services associated with agriculture, built environment, energy, forestry, health, ICT, natural environment, transport, water, and waste
- Insurance Services (Level 3) includes services associated with agriculture, built environment, energy, forestry, health, ICT, natural environment, transport, water, and waste
- Risk Management and Business Continuity (Level 3) includes services associated with risk mitigation and business continuity

Transport (Level 2) activities include seven Level 3 sub-sectors, divided into seventeen Level 4 activity groupings:

- Airport (Level 3) includes services associated with flood protection for airport infrastructure
- Bridge (Level 3) includes R&D and engineering services associated with bridge infrastructure reinforcement and heat-resistance services
- Rail (Level 3) includes installation and services associated with anti-subsidence, re-location and re-laying, flood protection, surface drainage and surveying and assessment services
- Road (Level 3) includes engineering services, installation and other services associated with anti-subsidence, re-location and re-laying, flood protection, surface drainage and surveying and assessment services

- Transport Services (Level 3) includes the R&D, engineering services and other services associated with general maintenance for transport infrastructure, R&D and consulting engineering services for adapting transport infrastructure, and travel and information services
- Vegetation Management (Level 3) includes the manufacture, supply, engineering services and other services associated with clearance gangs, and the manufacture, supply and maintenance of specialist equipment for vegetation management
- Waterways (Level 3) includes services associated with waterways and barrier management, waterways infrastructure such as bank maintenance, dredging and maintenance of locks, and waterways services in the form of surveying and assessment services

Waste (Level 2) activities include two Level 3 sub-sectors, divided into two Level 4 activity groupings:

- Recovery and Recycling (Level 3) include services associated with specialist consultancy, training and education
- Waste Management (Level 3) includes services associated with construction & operation of waste treatment facilities

Water (Level 2) activities include four Level 3 sub-sectors, divided into fifty-three Level 4 activity groupings**:**

- Smart Irrigation Systems (Level 3) include R&D, manufacture, supply, installation, maintenance and other services associated with agriculture and leisure areas
- Sustainable Drainage & Water Management (Level 3) includes manufacture, supply, installation, engineering services, consulting and other services associated with porous surfacing materials, rainwater capture systems and other services for: Agriculture; Domestic; Emergency Service Stations; Energy Infrastructure; Hospitals; Industrial; London Underground and DLR Networks; Main Rail Network and Major Stations; Main Road Network and Airports; Other Sites; Schools; Sustainable Urban Drainage Systems; Town Centres & Central Activities Zone; Tunnels under the Thames; and Water and Waste Infrastructure
- Water Treatment (Level 3) includes services associated with consulting education & training; engineering; technology, research and development; and water treatment and distribution
- Water Infrastructure (Level 3) includes manufacture, installation, engineering services, and other services associated with advanced water management technologies; leakage control in waste distribution system; river basins management; and storm water (management, treatment, planning)

1.5. Low Carbon Environmental Goods and Services Sector

The **Low Carbon and Environmental Goods and Services** (LCEGS) is divided into three Level 1 sub-sectors: Environmental, Renewable Energy and Low Carbon. These are in turn divided into twenty-four Level 2 sub-sectors:

- The Environmental sub-sector is made up of the following: Air Pollution Control, Contaminated Land Reclamation & Remediation, Environmental Consultancy, Environmental Monitoring, Marine Pollution Control, Noise & Vibration Control, Recovery & Recycling, Waste Management and Water Supply & Waste Water Treatment
- The Renewable Energy sub-sector is made up of the following: Biomass, Geothermal, Hydro, Photovoltaic, Renewable Energy Consultancy, Wave & Tidal and Wind
- The Low Carbon sub-sector is made up of the following: Additional Energy Sources, Alternative Fuels & Vehicles, Alternative Fuels, Building Technologies, Carbon Capture & Storage, Carbon Finance, Energy Management and Nuclear Power

Environmental (Level 1) activities include nine Level 2 sub-sectors, divided into forty-seven Level 3 activity groupings:

- Air Pollution includes indoor and industrial air quality and emissions control
- Contaminated Land Reclamation/Remediation includes Decommissioning of Nuclear Sites
- Environmental Consulting includes consulting, training & other services
- Environmental Monitoring includes analysis, monitoring and instrumentation
- Marine Pollution and Noise & Vibration Control both include abatement, consulting and R&D
- Recovery & Recycling includes Waste Collection and various recycling processes
- Waste Management includes Waste Treatment Facilities & Equipment, consulting and R&D
- Water Supply and Waste Water Treatment includes treatment, distribution, consulting and R&D

Low Carbon (Level 1) includes eight Level 2 sub-sectors, divided into 49 Level 3 activity groupings:

- Carbon Finance includes Credits Finance, Fund Management, Trading and Research
- Carbon Capture & Storage includes Capture, Pipeline, Storage and Engineering
- Energy Management includes Lighting, Heating & Ventilation and Engineering
- Nuclear Power includes Construction, Commissioning, Operations, Engineering and Testing Services

- Additional Energy Sources include Energy Storage Research, Fuel Cells & Hydrogen
- Alternative Fuels & Vehicles includes main stream and other vehicle fuels
- Alternative Fuels includes Main Stream and other Bio Fuels, Batteries and Other Fuels
- Building Technologies includes Doors, Windows, Monitoring & Control Systems and Insulation/Heat Retention Materials

Renewable Energy (Level 1) includes seven Level 2 sub-sectors, divided into 30 Level 3 activity groupings:

- Wind includes Large Turbines, Small Turbines and Wind Farm Systems
- Wave & Tidal includes Ebb & Flood, Pumps & Equipment, Turbine & Generation etc.
- Photovoltaic includes Systems & Equipment, Cells and Chemicals
- Hydro includes Turbines, Pumps, Electricity Supply and Dams
- Geothermal includes Whole Systems, Specialist Equipment, Consulting and R&D
- Biomass includes Energy, Furnace, Boilers and Related Systems
- Renewable Energy consulting includes specialist consulting and legal advice

Level 2 sub-sectors are provided below in their Level 1 groupings:

Environmental

Air Pollution Control (Level 2) sub-sector includes a wide range of manufacturing, operations, consulting and engineering functions that relate to improving and maintaining air quality. It includes:

- Emission Control sensing and monitoring systems and technologies
- Indoor Air Quality Control (domestic and industrial) through ventilation, cooling and purification systems
- Dust & Particulate control through installed technologies like filters, towers, scrubbers, cyclones and eliminators
- Process Engineering for odour control and other cleaner technologies
- Industrial Emission Control technologies and equipment (manufacture, installation, operations and maintenance)
- Emission Control through manufacture, installation and operation of sampling, control and evaluation systems

Contaminated Land Reclamation and Remediation (Level 2) sub-sector includes all activities that bring land back into agricultural, industrial, community or commercial use. This includes longer term activities like the decommissioning of nuclear sites.

Remediation and land reclamation include land forming, bunds, geotextiles, storage & containment, oil interceptors, drainage systems, monitoring systems, proprietary treatment processes, sampling & analysis, site investigation, specialist cleaning services, cleaner technology R&D, surface & ground water services, organic waste composting and other services.

Decommissioning includes equipment, consulting, project management, safety critical assessment, pollution control, enviro risk analysis & impact assessment, recycling & compaction, waste collection & containment, waste water treatment, site assessment, excavation, sampling & analysis and monitoring.

Environmental Consulting and Services (Level 2) sub-sector includes consulting, training and management services that are specific to the environmental sector. It includes:

- Specialist consulting - habitat assessment, regulations, compliance and management systems, audits and impact assessment, eco design, eco-investment, climate change modelling, insurance and bio-diversity advice & assessment
- Manpower and executive recruitment, temporary and permanent recruitment, contracted and interim management services
- Management services - general consulting, financial, IT, software and marketing services
- Training and education - publications, online publications, teaching aids, newsletters and courses for waste management, waste water treatment etc.

Environmental Monitoring, Instrumentation and Analysis (Level 2) sub-sector includes activities that measure water, soil and air quality and that support wider pollution control activities in other land, water, marine or air- based environmental sub-sectors. It includes:

- Environmental monitoring- development of cleaner monitoring processes and technologies, vehicle testing, oil spill detection, food testing, nitrate levels, meteorological, water/soil/air quality testing and monitoring
- Instrumentation equipment & control manufacture, supply, maintenance and development of instrumentation, laboratory equipment and software for environmental/ air/ water/ land/ marine analysis
- Environmental analysis - laboratory testing, data logging & recording, quality reporting, collection & collation of samples, auto sampling systems, in-field measurement and reporting and R&D in water, soil and emissions analysis

Marine Pollution Control (Level 2) sub-sector includes responses to pollution hazards at sea and also discharged from land-based sources. It includes the following products and services for deep sea, coastal waters and inland waterways. It includes:

- Marine pollution abatement - manufacture, supply and maintenance of booms, chemical discharge treatment equipment, solid & liquid waste/radioactive containment and treatment equipment and monitoring services, spillage clean-up services, shoreline & shallow water remediation and maintenance services and collection & containment services

- R&D - cleaner processes and technologies, monitoring systems, oil absorbents, boom and containment systems, water containment and treatment technologies
- Specialist consulting and training - chemical discharge prevention, education, policy & planning, training, publications, sewerage discharge management, radioactive waste management and solid and liquid waste management

Noise & Vibration Control (Level 2) sub-sector includes all activities that prevent or control noise and vibration pollution. It includes:

- Noise abatement - manufacture, supply, installation and maintenance of barriers, acoustic management equipment, noise insulation, noise & vibration control and monitoring equipment, acoustic management equipment, noise insulation materials, monitoring services, large plant services and surface modifications
- R&D - noise attenuation, noise sensing, vibration sensing, vibration control and noise & vibration abatement equipment and cleaner technologies and process by development
- Consulting and training - consulting, publications, training and noise monitoring services

Recovery & Recycling (Level 2) sub-sector includes all activities relating to the collection and processing of domestic and industrial waste products. It includes:

- Waste collection - manufacture, supply, installation and operation of equipment and services for collection of household, industrial and hazardous waste, treatment of waste prior to landfill and supply of pre-treated recyclates
- Engineering & equipment - engineering services and process control for the complete range of recycling stock
- Consulting & training - collection and processing consultancy and training, publishing, legal & insurance advice
- R&D - metals recovery, pyrolysis, bio-based systems, new recyclable materials, new collection & processing technologies
- Recycling stock - recovery, recycling, processing, sorting, supply and packaging of rubber, plastics, paper, oil, electrical, electronics, glass, composting, construction & demolition, automotive, wood and textiles stocks

Waste Management (Level 2) sub-sector includes the treatment/management of domestic and industrial waste that cannot otherwise be recycled. It includes:

- Construction & operation of waste treatment facilities for anaerobic digestion, composting, incineration, landfill, waste to energy conversion and the supporting engineering services
- Equipment for Waste treatment, manufacture, supply, installation and maintenance of bio filters, bio reactors, collection equipment, grease traps, oil interceptors, materials processing equipment, monitoring & control equipment and nightsoil & landfill leachate treatment.

- R&D - incineration technologies, energy from waste systems, cleaner processing & treatment technologies, disposal of hazardous waste and other materials processing technologies
- Consultancy and training - books, periodicals & publications, specialist consulting and training for asbestos, hazardous materials and other waste management systems

Water Supply and Waste Water Treatment (Level 2) sub-sector includes activities relating to the treatment of pollutants in the water supply. It includes:

- Water treatment and distribution, manufacture, supply, installation and maintenance of systems for activated sludge, aerobic & anaerobic treatment, biological odour & corrosion control, demand management & leakage reduction, effluent treatment, filters, microbial treatment, screens, sequencing batch reactors, water disinfection and storm/grey water treatment
- Engineering - field engineering, pipe & valve maintenance, fitting & construction, fabrication & welding and engineering design
- R&D - water purification, water management, black/grey water treatment, biocides, bio reactors and aerobic/anaerobic treatment technologies
- Consulting and training - engineering and water management training, publishing and specialist consulting for water systems treatment, management and engineering

Renewable Energy

Biomass Energy (Level 2) sub-sector includes all activities that convert biomass into energy but excludes biomass materials (see Alternative Fuels). It includes:

- Biomass furnace systems - manufacture, supply, consulting, design, installation, engineering and other services for domestic, industrial and community applications
- Biomass energy systems - manufacture, supply, consulting, design, installation, engineering and other services for domestic, industrial and community applications
- Manufacture of biomass boilers and systems including boilers, cogeneration, heat exchange and packaged power systems for domestic, industrial and community applications
- Biomass boilers and related systems including supply, consulting, design, engineering, installation and other services for boilers, cogeneration, heat exchange and packaged power systems for domestic, industrial and community applications
- Technical and operational consulting

Geothermal Energy (Level 2) sub-sector includes all activities relating to the extraction and use of heat generated from the earth. It includes:

- Manufacture and supply of specialist thermally enhanced equipment - grout, heat pumps, pipes, flow control valves, drilling equipment, installation rigs and ancillary equipment
- Whole systems manufacture and supply for industrial, residential and community geothermal energy applications
- Component design and research - design services, component research and component recycling
- Consulting & related services - architectural, construction, systems design, consulting, engineering, installation and project development services

Hydroelectric Energy (Level 2) sub-sector includes activities that help to extract energy from river and other water sources held in dams (as opposed to wave or tidal energy) that is used to drive turbines and generators. Large scale civil engineering/construction activities associated with dam building have not been included in this analysis. It includes:

- Turbines - manufacture, supply, installation and maintenance of turbine generators, control systems, spares and structural supports and fittings
- Dams & structures - manufacture, supply, installation and maintenance of dam operational systems, control systems, maintenance services and sluice gates and actuators
- Pumping & lubrication - manufacture, supply, installation and maintenance of pumps, spares, storage and lubrication systems and spares
- Electricity supply - manufacture, supply, installation and maintenance of power factor, power distribution and grid connections and supporting structures

Nuclear Power (Level 2) sub-sector includes all activities that relate to the generation of nuclear power, excluding decommissioning of nuclear sites. It includes:

- Nuclear safety engineering services, regulatory compliance, reactor management, fail-to-safety engineering
- Nuclear power plant operations management, engineering and PR
- Nuclear cooling equipment - manufacture, installation and maintenance
- Construction of plant and equipment - site development, reactor and buildings and power plant/equipment construction
- Commissioning engineering services - cooling & thermal control, engineering maintenance, instrumentation, power distribution, reactor & plant commissioning
- Sampling & testing services - thermal control testing, remote monitoring, back-up plant monitoring and effluent discharge testing
- Nuclear scientific services - research, laboratory testing and fuel management

Photovoltaic Energy (Level 2) sub-sector includes all activities that help to convert solar radiation into useable energy. It includes:

- Chemicals - production and supply of solar chemicals and solar pond salt

- Systems & equipment - manufacture, supply, installation and maintenance of active and batch systems, clerestory windows, light shelves and tubes, solar box cookers, solar combi-systems and solar lighting design
- R&D - solar power and solar car research
- Photovoltaic cells - manufacture, supply, installation and maintenance of photovoltaic modules, mounting systems, ancillary components, cells and cell materials
- Other equipment & chemicals - manufacture, supply, installation and maintenance of glass houses, convection towers, heliostats, parabolic collectors, turbines, trough collectors, towers and solar trackers

Renewable Energy Consulting (Level 2) sub-sector includes consulting and legal services specific to Renewables i.e., not included in general or specific environmental consulting. It includes:

- Legal services - wind farm location and other renewable energies
- Consulting - turbines, solar and photovoltaic applications, public sector and corporate Renewables policies, nuclear energy, insulation technologies and alternative fuel technologies

Wave & Tidal Energy (Level 2) sub-sector includes all activities that help to convert the energy from waves and tides into usable power (also known as marine renewable energy). It includes:

- Turbines & generators - the manufacture, supply, installation and maintenance of tidal turbines, structural supports and fittings, spares and turbine control systems
- Pumps & equipment - the manufacture, supply, installation and maintenance of pumps and pump spares
- Two basin schemes - provision of structural engineering and field maintenance services
- Ebb & flow systems - manufacture, supply, installation and maintenance of ebb and flood generation systems
- Assessment & Measurement - waves, water levels, turbidity, tidal energy, sediment, salinity pollutants, fish stocks monitoring and local/ global environmental impact assessment
- Other general services - financial planning, operational and maintenance services

Wind Energy (Level 2) sub-sector includes all activities that convert wind power into usable energy. This includes wind farm systems, large and small wind turbines. The sub-sector is divided by size of turbine rather than location (onshore and offshore) because it is easier to differentiate and map supply chain activities in this way. It includes:

- Wind farm systems - manufacture, supply, installation, operation and maintenance of integration, power plant, power control, grid entry equipment and systems and electrical and mechanical componentry

- Small wind turbines - manufacture, supply, installation, operation and maintenance of small turbine systems (blades, towers, fixing structures, cowlings, enclosures, gear boxes and drive trains), componentry and research
- Large Wind Turbines - manufacture, supply, installation, operation and maintenance of large turbine systems (blades, towers, fixing structures, cowlings, enclosures, gear boxes and drive trains), componentry and research

Low Carbon

Additional Energy Sources (Level 2) sub-sector groups together R&D, Design and Prototyping activities relating to a range of new Low Carbon energy sources.

These energy sources include: Fuel Cells, Hydraulic Accumulators, Hydrogen, Molten Salt, Thermal Mass, Compressed Air, Superconducting Magnets and more general energy storage research.

This is a small sub-sector (in value and impact) because only energy sources that have a current economic footprint (i.e., trading) are included. This excludes a number of promising energy sources that are still in development and for which economic evidence is not yet available.

Alternative Fuel and Vehicles (Level 2) sub-sector includes Low Carbon Fuel and technology activities that relate to (predominantly) automotive transport. It is divided into Alternative Fuels (main stream) and Other Fuels and Vehicles. This sub-sector does not include bio diesel (see Alternative Fuels). It includes:

- Alternative Fuels includes the production, supply and distribution of Natural Gas (Compressed or Liquefied), Synthetic Fuel and Auto Gas (LPG, LP Gas or Propane)
- Other Fuels and Vehicles includes vehicle technologies and fuel sources that are still at an early stage
- Research, Design, Development and Prototyping activities are included for: Hydrogen fuel cells and hydrogen internal combustion, Electric, Hybrid Electric, Steam powered, Organic waste fuel, Wood gas, Solar powered and Air, Spring & Wind powered vehicles

Alternative Fuels (Level 2) sub-sector includes a wide range of Low(er) carbon fuel sources that are not included under Renewable Energy. It includes the manufacture, production, supply and distribution of:

- Batteries - chemicals, chargers, controllers, cables, connectors, containers, suppliers and testing equipment
- Bio fuels for Vehicles - bio diesel, butanol, ethanol and vegetable oils
- Mainstream Bio fuel applications (non-transport) - bio diesel, butanol and ethanol
- Other Bio fuels - biomass, methane, peanut oil, vegetable oil, wood and woodgas.
- Other fuels - Hydrogen

Building Technologies (Level 2) sub-sector includes main stream building materials and systems that contribute to reduced energy use and to lowering the carbon footprint of buildings. It includes:

- Windows - the manufacture, supply, distribution, installation and development of double glazed, electro chromatic, insulated alloy, honeycomb and triple glazed units.
- Doors - the manufacture, supply, distribution, installation and development of insulated alloy and plastic doors
- Insulation and heat retention materials - the manufacture, supply, distribution, installation and development of insulation materials, heat retention surfaces & ceramics, electronic control systems and controlled venting and ducting systems
- Monitoring and control systems - the manufacture, supply, distribution, installation and development of energy and distributed energy control, monitoring, management and analysis systems

Carbon Capture & Storage (Level 2) sub-sector includes activities that store carbon emissions - from locations like power plants and prevent them entering the atmosphere. It includes manufacturing, supply, distribution, installation, maintenance, development and design of:

- Pre combustion capture systems
- Post combustion capture systems
- Oxy-Fuel combustion systems
- Pipeline systems and services
- Ship storage and discharge systems
- Ocean storage equipment and services
- Mineral storage equipment and services
- Geological storage equipment and services
- Engineering, project management and consulting services

Carbon Finance (Level 2) sub-sector includes investment activities and financial instruments for emission reduction projects and carbon trading. This includes:

- Carbon credits finance and fund management - land, project or general trading services from finance houses and investment funds
- Carbon credits trading - development and supply of trading systems, land/project/general trading houses and transactions
- Carbon market intelligence - carbon markets analysis & reporting and carbon trading by forecasting and reporting from journals, online, data providers or other publishing sources
- Projects and verification - data collection, verification, legal, project development, capacity development and carbon declaration services
- Press and journalism - financial press and periodicals, other journals, data providers and online services

Energy Management (Level 2) sub-sector includes energy saving and power management activities for industrial and domestic use. It includes:

- R&D into high efficiency lighting, heating & ventilation, power, lighting, equipment & pumps and advance management systems
- Gas Supply - monitoring, meterage, leak detection & maintenance, gas supply control and manufacture of high efficiency consumer equipment and devices
- Lighting - manufacture, supply, distribution and installation of energy-saving light bulbs & tubes, lighting and control systems
- Heating & Ventilation - manufacture, supply, distribution and installation of energy saving equipment and systems
- Electrical - manufacture, supply and installation of energy saving power control, building control, power consumption control & monitoring systems
- Consulting and other services - advice & consultancy, publication, training and design of management systems

Appendix 2: Study Methodology

This report is an interim report of a three-year study commissioned by the Greater London Authority and running from August 2025 to November 2027. It introduces new market areas and reports market data to 2024/25. There will be two more reports in this series, for 2025/26 and 2026/27.

The purpose of this study is to provide a body of evidence of economic activity in Greater London within five areas of the economy. This includes the kMatrix data and reporting for the existing Low Carbon Environmental Goods and Services definition for financial years 2023/24 through to 2026/27, continuing the GLA's London Snapshot reporting series and timeline of market progression since 2007 (here).

Additionally, the study includes analysis from WPI Economics, extending their London's Green Jobs and Skills study from 2021 (here). WPI Economics identified 11 policy-driven priority sectors, compiled using kMatrix LCEGS sub-sectors and the Green and Blue Infrastructure, Adaptation and Circular Economy datasets provided by kMatrix where LCEGS did not include relevant activities within policy areas. The study then forecasts the employment need within those priority sectors to reach stated policy targets up to 2050.Appendix 2.5 includes an overview of the priority sectors and study methodology for the WPI workstream.

Finally, the study also includes the development of four additional market areas, in collaboration with the GLA and partners, which are:

Low Carbon Environmental Goods and Services (LCEGS): long-running dataset with timeseries data back to 2007, updated for continuity of definition.

Climate Tech (CT): expanded, restructured and re-labelled version of LCEGS, with some activities excluded (e.g., hybrid vehicles) and the inclusion of new activities (e.g., decarbonisation of industry and manufacturing; green materials and chemistry; low-carbon shipping and aviation; active transport i.e. bicycles and e-bikes etc.). This is intended to be the standard dataset

Circular Economy (CE): as defined by stakeholders and at simplest definition, includes activities intended to keep materials in use for as long as possible and includes design, reuse, rental, repair, remanufacture, redistribute, recovery & recycling and digital infrastructure and information systems.

Green and Blue Infrastructure (G&BI): as defined by stakeholders, it includes the water industry, sustainable urban drainage, green spaces, green roofs/walls, and the facilitation and engagement activities enabling their use

Climate Adaptation (CA): as defined by stakeholders, it only includes those activities which were intended to be adaptive and covers a range of activities within water, ICT, the built environment, energy, transport, professional services, health, agriculture and others.

The result is five different markets, drawn from five overlapping datasets for the core market analysis (section 1-5). There is a sixth dataset produced for analysis and forecasting of employment needs for green policy areas (section 6).

The rationale for overlapping datasets is simple: different people use reports differently, have different data requirements (both in terms of detail and presentation) and have different areas of market relevant to their subject area. By creating five standalone datasets the five identified market areas for analysis are available for use

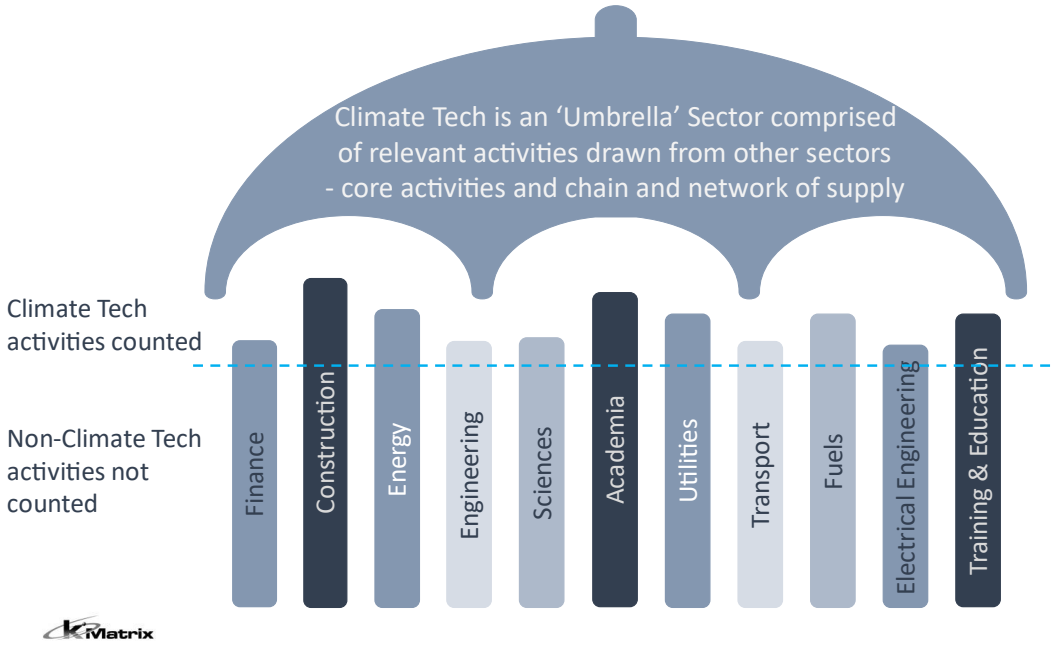
without users having to build their own. Appendix 1 includes definitions for the market areas, this Appendix details how the data is produced.

A2.1 Introduction to the Climate Tech and associated Markets

This section focuses on Climate Tech as an example, however the same principle and methodology has been applied to all markets within the study.

The Climate Tech sector comprises products and services from across the economy, which actively enable a shift towards a green economy. The Climate Tech sector is considered an 'umbrella' or horizontal sector, crossing many other traditional sectors, counting products and services from those sectors which can reduce carbon emissions and improve the environment as demonstrated in Figure A2.1.

Figure A2.1: Sector umbrella diagram



The sector is comprised of both core elements and those in the chain and network of supply, without whom the sector could not function.

A2.2 kMatrix Brief Methodology

This report presents data for the fiscal years 2022/23, 2023/24 and 2024/25. It builds upon the original LCEGS work to present the Climate Tech dataset which represents a modern definition of Green and Climate-related activities relevant to London.

The original LCEGS dataset is based upon the work and methodology used by kMatrix to provide datasets on the UK's Low Carbon Environmental Goods and Services (LCEGS) sector for UK Government reported annually by the Department for Business, Innovation and Skills (BIS) from 2007/08 to 2011/12 and further reported every 3 years for the UK and London by the Greater London Authority to 2024/25. This represents a continuous annual timeseries of the LCEGS sector for eighteen years, with the latest data reported in section 5. This has allowed a multi-year dataset to be created that provides real insight into how the sector has

developed since 2007/08. The time series provides 18 years of sales, companies and employment data and 17 years of growth rates for the LCEGS and 6 years for Climate Tech, Circular Economy, Green & Blue Infrastructure and Climate Adaptation.

The Climate Tech dataset has drawn from the LCEGS taxonomy, removing outdated technologies (e.g., Hybrid Electric Vehicles as they are no longer considered 'Green'); re-structuring sub-sectors to create new Levels of sub-sector; and including activities and technologies absent from the LCEGS taxonomy (e.g., bicycles). It also includes some activities from Circular Economy (e.g., remanufacturing), Climate Adaptation (e.g., climate risk assessments) and Green and Blue Infrastructure (e.g., green roofs).

All datasets (Climate Tech; LCEGS; Climate Adaptation; Green and Blue infrastructure; and Circular Economy) measure the core activities of the sector along with those in the supply chain, without whom the sector could not operate. The dataset measures the core activities of the sector along with enabling activities in the supply chain, without whom the Climate Tech sector could not operate. For example, the Wind sector includes those companies which develop the systems integration software enabling the power generated though turbines to be integrated into the National Grid, but it also includes those companies installing and maintaining the system integration software itself. Another example would be the collection of household waste, where the collection, processing and recycling of the waste is included, along with those companies who design, manufacture and supply the waste collection equipment.

The purpose of the Climate Tech dataset in its original form is to provide a standardised measure of the complete Climate Tech market. The whole dataset includes those 'core' activities, which would immediately come to mind such as the manufacture of a wind turbine blade, but also the less obvious 'non-core' activities, such as the manufacture of the bearings for the turbine. Non-Core activities can be considered "enablers" for the Core sector and are often companies who have diversified from existing strengths into new sector activities. Non-core activities also include mid-stream activities, R&D, finance, training and other activities which cross multiple other sectors. This is described in Figure A2.2.

Figure A2.2: Total Market Composition

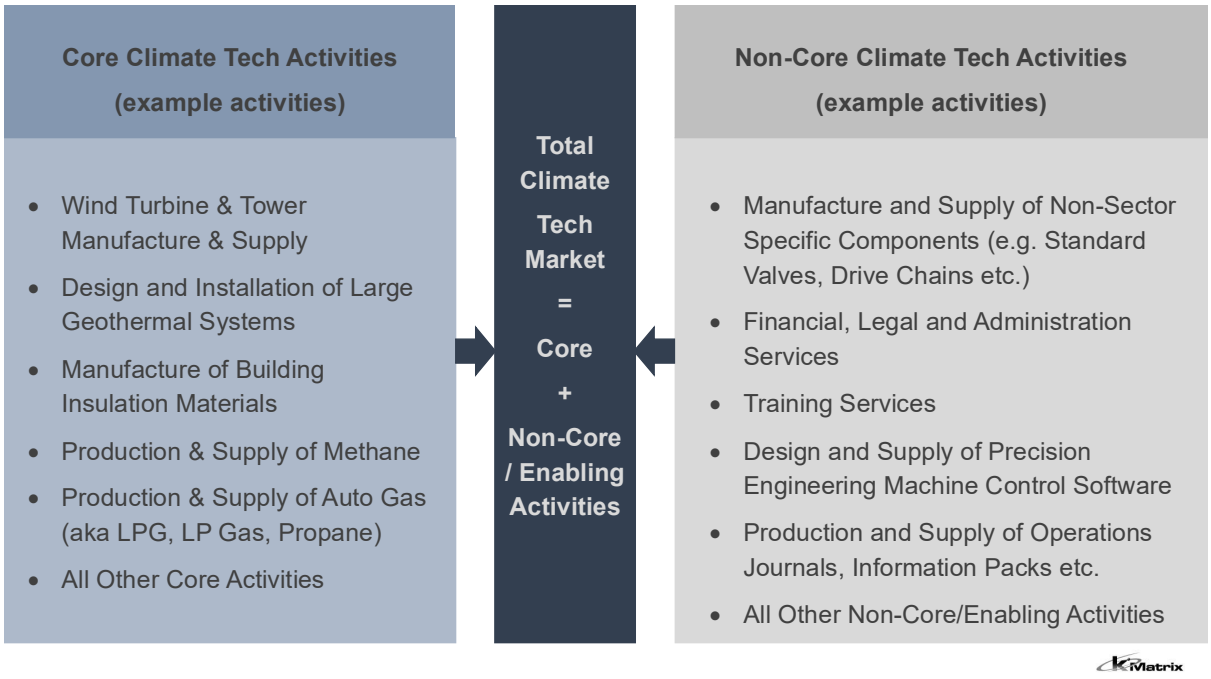


The definition of a sector is almost always open to debate, in terms of what is, or is not, considered to be part of the market or sector in question. The kMatrix methodology includes all aspects that can realistically be considered part of the Climate Tech sector. The taxonomy is built and interrogated by assembling activities and services which are then grouped together under different headings. From the example taxonomy in Table 2, eight level 2 activities are grouped together to form the Renewable Energy Level 2 heading. There are five levels in total, comprising 2,589 activities.

The following picture illustrates the two distinctive sides of the Climate Tech market, the smaller Core market and the much larger Non-Core market, provided by enablers within the Climate Tech sector. Examples give a simplistic overview of the types and differences between activities, with the Core side including activities such as manufacture of wind turbines and building insulation materials. The enablers providing Non-Core activities are offering components that are non-sector specific, such as valves, gaskets, drive chains etc., alongside financial, legal and administration activities.

In essence, Core activities are those products and services which are generally Climate Tech specific, whereas the Non-Core activities, provided by enablers are products and services which are not Climate Tech specific and can generally be found in other sectors. Core activities are considered vertical in nature, being sector specific, whereas Non-Core activities are horizontal, crossing other sectors. Both sides of the market are required for the sector to function. This is described in Figure A2.3.

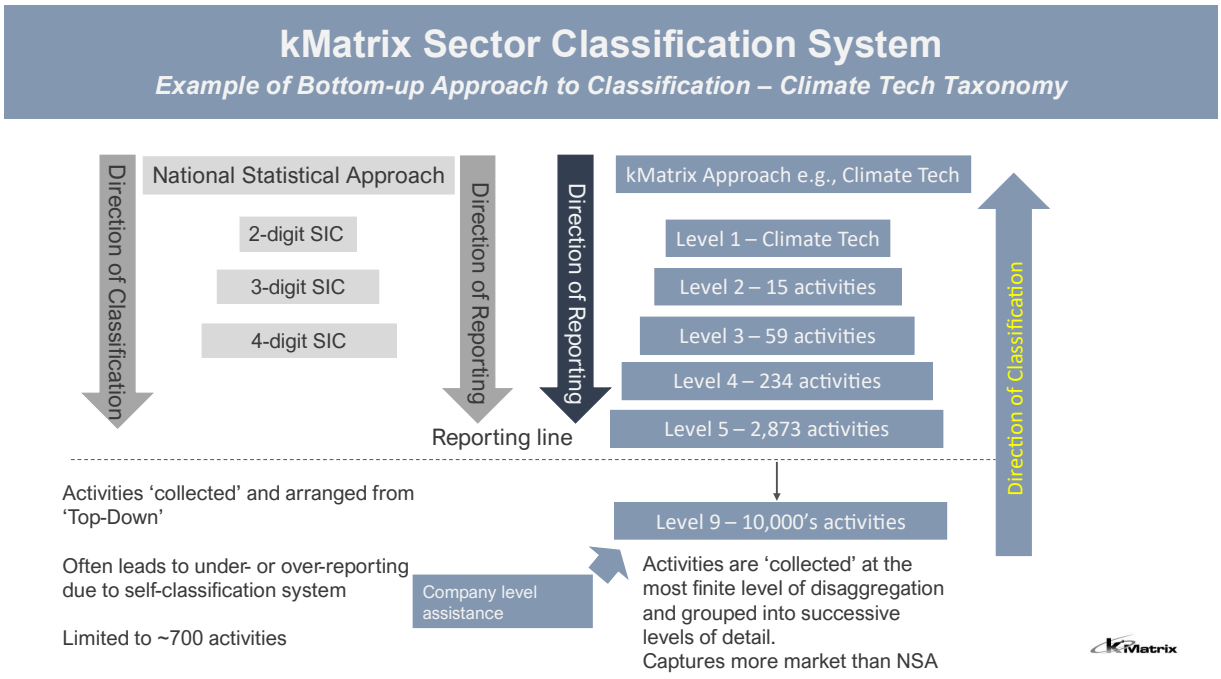
Figure A2.3: Core and Non-Core Activities



The economic values provided are Sales values, which are transactions made within the sector, which have an economic footprint that can be measured. For companies which service multiple sectors, for example in finance, the sales value is the value of sales that company has in the Climate Tech market, it does not include finance sales into other sectors.

kMatrix uses a unique data triangulation methodology, developed with Professor R. Jaikumar of Harvard University over 35 years ago. The process was originally developed to look at individual companies, providing evidenced data for development. As such, sectors are classified from the 'bottom up', collecting activities from a product and service level of detail and grouping them into successive levels of data, as described in Figure A2.4.

Figure A2.4: kMatrix Sector Classification System



This is quite different to the National Statistical Approach, which classifies from the 'top down', with a company choosing their 2-digit code, then successive codes down through the classification system. The SIC system is very good as a national accounting system, but it struggles with hard to measure sectors such as Climate Tech. Here, the kMatrix system of data collection, which triangulates transactional data from many sources, up to 63,000 for this study, provides the flexibility of a definition tailored to the sector being studied. Although the sector is classified from the bottom up, the sector taxonomy is reported from the sector level down, through a series of levels of complexity.

Sales values are triangulated from public, private, institutional, academic, industrial and trade sources, including advertising and HR, financial, legal and investment, other unpublished sources and over 2.5 million specialist datasets worldwide.

Employment values are triangulated from multiple sources including industry specific personnel associations; industry specific training associations; academic Data sources (sector specific); sub-sector specific training providers; trans-sector training data (via academia and sector associations); and over 7,500 datasets in total

Data is 'triangulated' using a similar principle to satellite navigation, the process looks at multiple sources of data in and around a market to determine likely true values for activity within hard to measure markets. An example of kMatrix data triangulation is provided in Figure A2.5.

Figure A2.5: Example of kMatrix Data Triangulation

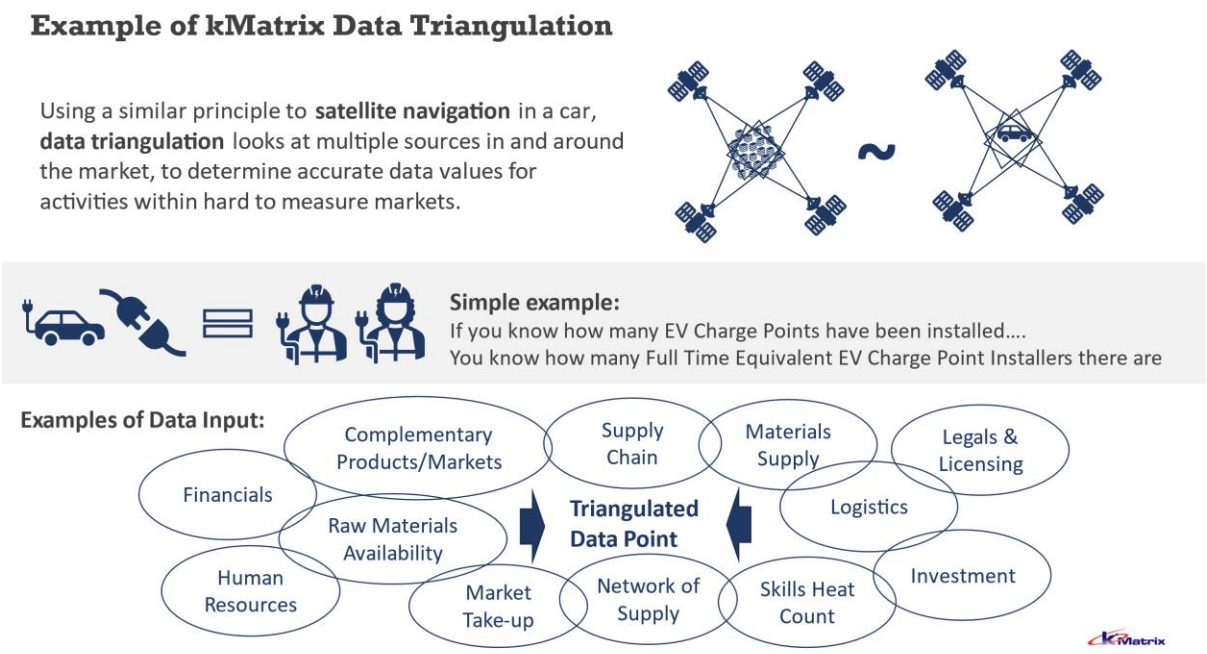


Figure A3.5 includes the example "if you know how many EV charge points have been installed, you know how many FTE EV chare point installers there are". This is a very simplistic scenario, but data sources could include financials, HR, raw materials availability, supply chain data, skills head counts, investment data, logistics, legal & licensing etc. Further detail is shown in Figure A2.6.

Figure A2.6: Further Detail on EV Charge Point Installer Example

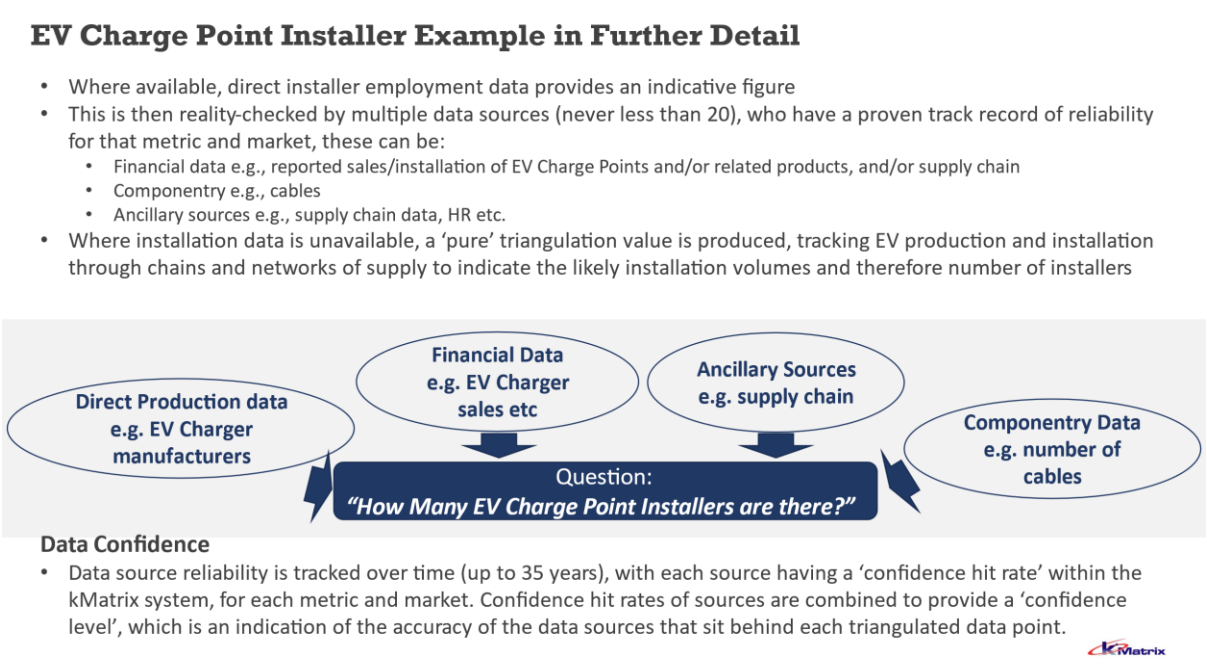


Figure A2.6 illustrates that where available, direct installer data provides an indicative figure, this is reality-checked by multiple data sources with a proven track record of reliability, these could include reported sales of charge points, or related products; cables, and ancillary sources. Where data is unavailable, 'pure'

triangulation tracks EV production and installation through chains and networks of supply to indicate the likely installation volumes and number of installers.

In summary, kMatrix never uses a single source for data, each datapoint is created using multiple sources to mitigate against single source reporting errors.

By looking at the chains and networks of supply, consensus can be achieved as to the likely 'true' value of a datapoint, as per the EV Charge point Installers above.

This process has measured the LCEGS sector for the Greater London Authority and the UK for over a decade (section 5). kMatrix also collaborate with academic colleagues in several fields, co-authoring academic papers, which are peer-reviewed and published in academic journals including Nature, Climate Services and the Lancet[22].

A more detailed kMatrix methodology is in Appendix A2.3 below.

A2.3 kMatrix Detailed Methodology & Worked Example

This section is intended for readers who want a more technical understanding of how the data is produced, beyond the brief description in the previous section.

A2.3.1 Introduction

The methodology works beyond standard industrial and market classifications and looks for multiple sources of industrial-based evidence to quantify market values. kMatrix is unique in how it identifies, assembles, evaluates, monitors and develops rules for the use of those sources to quantify 'difficult-to-measure' markets.

Market activities are only included when there are multiple data sources. These sources are screened to remove duplicate references to any single source and then shortlisted by removing outliers and unreliable sources. This shortlist is then screened again until some consistency in value is achieved.

Market values created in this way are then "reality tested" by comparing these values within and across sectors, against known national/regional industrial specialism, across nations, against known trade flows and recognised industry benchmarks.

This methodology is quantitative and data intensive. Its uniqueness resides in the ability to manage and select reliable sources that are specific to each market activity. The data sources are global in nature and derive from government, private sector, institutional, industrial, trade, advertising, HR, financial, investor, academic and other (unpublished) sources.

Sources are carefully managed. kMatrix measure and rate sources' accuracy and reliability over time and exclude sources that are outdated or without a measurable track record. At least seven qualified sources showing some consistency in results are used for deriving any reported values. A mean value is then created from these

[22] Example sectors the process has been applied to, where evidence is available in the public domain via clients publishing reports or published peer-reviewed academic journals include: The green Economy (Geo); The green economy (Nature); Adaptation economy (Nature); Carbon Finance (Nature); Weather and Climate (Science Advances); Climate Services (Climate Services); Adaptation and Resilience to Climate Change (Nature); Cyber Security (European Commission); Low carbon environmental goods and services sector (London); Low carbon environmental goods and services sector (Hertfordshire); Low carbon environmental goods and services sector (Midlands Net Zero Hub)

selected values and then assign a confidence level (generally of about 85%) based upon the spread of selected values around the mean

In contrast to most research or consulting reports kMatrix do not identify, copy and then acknowledge single data sources for specific tables or analytical comments. This is impossible to do because every aspect of data is multi-sourced and then "transformed" it into a new value. This makes single source attribution meaningless.

A2.3.2 Data Triangulation – the Cornerstone of kMatrix

kMatrix uses a propriety data triangulation methodology to calculate over 100 metrics for many sectors including Domestic Retrofit, Space, Climate Services, Green Economy, Marine, Security, Cybersecurity, Adaptation & Resilience, Water, Design and others.

The methodology for sector analysis is definition and source-driven. The definition determines WHAT gets measured and the source model determines HOW it gets measured.

All of the data measures are multi-sourced, and the process starts by defining the financial value of the sector (based upon our inclusive definition) from a wide variety of sources.

When kMatrix create a sector definition they always check that multiple sources of economic data exist for each included activity. This financial value is checked against existing sector values and also against the value of other economic sectors.

This is an iterative process that continues until they arrive at robust values and comparisons for all activities within the sector (comparative values of Wind vs. Photovoltaic vs. Biomass) that can then be meaningfully compared across global economies (UK vs. US vs. China etc.) and across different sectors (environmental consultancy vs. other specialist consulting activities). It is important that the methodology triangulates economic values in this way so that they:

a) Can exclude the research bias that often occurs from focusing on a single sector in a single country and

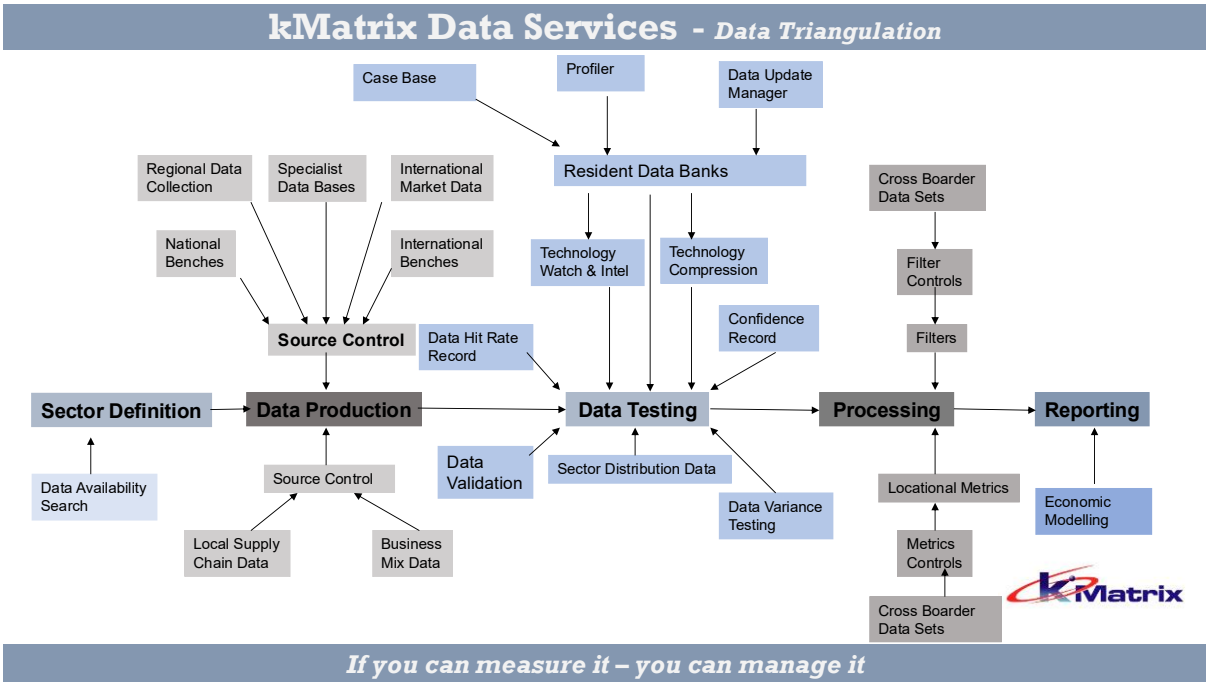
b) Ensure that they are effectively monitoring a sector that is still evolving by absorbing activities often included in other sectors.

The same general research methodology is used across all sectors and metrics, while the requirements for each industrial sector research project vary, the methodology and process always follow the same five key stages:

1. Define – Identify, select and group the target market activities, whilst conducting an initial check for the right volume and quality of data sources
2. Assemble – Populate the data measures for each market activity, carefully filtering the core data sources to ensure that confidence levels are within bounds
3. Check – Apply quality assurance checks to ensure data accuracy/consistency across market activities and different countries and, in some cases, cross-check with different sector values
4. Validate – Sense-check and spot-check market data values against specific projects/authoritative sources/expert knowledge/customers or clients
5. Publish – Recalculate, update confidence levels and publish research data set

6. This process is illustrated in more detail by the Sector Research Model (Figure A2.7), where the numbers correspond to the process stages above.

Figure A2.7: Sector Research Model



The research model used by kMatrix comprises distinct but iterative phases. This is because kMatrix needs to "create" its own data before it can analyse it. This is fundamentally different from any SIC-based sector analysis that takes its data as a "given."

Within the above model a range of different research methods are employed. Some aspects of the research system are semi-automated (necessary when dealing with large volumes of data), but the rulesets and software algorithms are based upon 35+ years' experience in compiling and reporting complex markets and all final decisions about reported outputs are subject to intense analyst scrutiny.

The research methods employed include:

- Desk research to define sector content and determine sector boundaries
- Industrial templates that identify core and supply chain activities in detail for inclusion in sector definition
- Data discovery tools to identify new data and sources relating to the defined sector activities
- Data coding systems to ensure that sector, company-level data and other classification systems are aligned for analysis and reporting purposes
- Data management techniques and systems to maintain existing source libraries and integrate them with new source materials
- Software systems with defined (but flexible) rulesets to filter source content
- Semi-automated processes for modelling and calculating data values from selected source lists

- Knowledge base of case study materials that can be accessed to help fill data gaps and provide industrial performance benchmarks
- Quality assurance processes and tools that check all values against a range of international, national and industrial comparators
- Data management and visualisation tools for presenting and reporting data

A2.3.3 Calculating Employment – Triangulation of Skills

The foundation of the kMatrix workforce data within this study is not derived from surveying the industry but from the in-house kMatrix Data Triangulation of multiple sources from within and around the industry.

The kMatrix methodology has the ability to measure economic activity at the product, service and skill-level of detail, without the use of either the Standard Industrial Classification (SIC) or Standard Occupational Classification (SOC) systems (or other country equivalents). This allows the development of a detailed market segmentation model, with in-depth skills measurement and analysis, which is specific to the sector being measured, without undue burden on the industry.

The data itself comes partly from trade bodies and companies, so although companies do not contribute directly to the quantitative data within the study, they are indirectly involved through the big data triangulation process.

Employment is a measure of the estimated employment numbers for those within all identified sub-sectors. National, regional, and other economic data sources have been used to estimate current employment levels for each sector activity.

Where employment information is scarce, or where employment is estimated as a proportion of a company's sales, a comprehensive range of case study materials are assessed to provide sensible industry-specific ratios and benchmarks.

Data has been collected from multiple sources including:

- Industry specific personnel associations
- Industry specific training associations
- Academic Data sources (sector specific)
- Sub-sector specific training providers
- Trans-sector training data (via academia and sector associations)
- Over 7,500 datasets in total

Terminology for jobs within industry is often varied, e.g. 'technician' and 'engineer', particularly within the Green Economy, and are used interchangeably and where culture within a company can determine terminology used for non-protected jobs.

Additionally, there is also variation in terminology by both region and country, e.g., 'engineer' is a protected title in Canada, while in the UK, 'engineer' is not protected and can refer to everything from cleaning (domestic engineer) through to a 'civil engineer'. As such, kMatrix converts the data into common definitions.

Number of employees is a measure of who has been employed in which role, it does not track their qualifications or whether the hire was successful, i.e., whether they

had to undergo extensive training or upskilling to perform the role, or for how long. It doesn't measure quality, only quantity.

The measurement is a Full Time Equivalent (FTE), which is a calculation of the number of hours worked within a Job Role, performing the tasks within the service being undertaken. It is an indication of how many people working full-time would be required to fulfil the work being measured. If two people worked part-time, they would be counted as one FTE.

The benefit of this form of measurement is it provides a clear indication of how many hours of work are undertaken and how this varies between sub-sectors. It also gives an indication of how many people are working within the sector, without double-counting people who are multi-skilled.

The limitation of the FTE measurement is that it does not give an indication of how many people in total are providing the service. Because it measures the hours worked, it does not count a person working 2 hours as an individual within the sector, i.e., it does not count how many people work part-time within the sector.

Conversely, it has the benefit of not over-reporting or under-reporting workers depending on a set criteria. For example, if only those working more than 60% of the time in the sector were included and the sector is defined by high numbers of part-time workers, the employment figures have the potential to be vastly under-reported and visa-versa. Another example is education, where a lecturer teaching 1 hour a week for 6 weeks is counted in the total FTE.

By using the FTE system of measurement, with the advantages and limitations clearly stated, the absolute time worked can be used for skills analysis.

The data is calculated from the employment side, grouping employees into activities within markets, as opposed to selecting the market and then looking at the employees within it. By using this distinction, we can view how many people are doing what, where and why.

A2.3.4 Measures

Throughout this dataset the focus is on a small number of key measures. To summarise, these are:

- **Sales:** This is the estimate (in £m) of economic activity by identified companies in a defined region within the supply/value chain for market products and services. The estimate is based upon where sales activity takes place rather than where it is reported.
- **Businesses:** This is a measure of the total number of companies in a defined region that match, or fit within, the market activity headings.
- **Employment:** This is a measure of the estimated employment numbers across all aspects of the supply/value chain. National, regional and other economic data sources have been used to estimate current employment levels for each area of market activity.
- **Growth:** This is a multi-year measure that includes historical AND forecast growth. The growth measure is derived from live, rapidly changing and multi-sourced data links and is specifically based upon growth in Sales. Growth is generally a measure of increased market opportunity and can be used for

trend analysis, comparison across different markets or as a moving indicator of market confidence (growth time series).

- **Exports:** This is a measure of products and services sold overseas and is calculated using in-country/out-of-country data and additional data from the logistics and freight forwarding industry.

Sales: The key measure that is used for financial value is Sales i.e., the value of sector products and services sold either to other businesses or directly to consumers from the geographically located company base, whether it be national, regional, sub-regional or Local Authority. This means that the analysis only includes activities where there is a measurable economic footprint. It does not include publicly-funded research or pre-commercial consumption of funds, except where those activities result in the purchase of product and services from third parties

As they derive the financial value for the sector they also assemble and assess the UK company base that is contributing to this value. In the first case they identify all "significant" or "specialist" companies, these are companies where Climate Tech account for over 80% of company sales, and then the supply/value chain companies where Climate Tech sales is an important and measurable component of their overall sales - (over 20%). These percentages are indicative and vary for different Climate Tech activities.

Businesses: The company count acts as a further reality check on the financial value of the sector by comparing company turnover values in this and other sectors and also assists in the geographical analysis of where Climate Tech value is created. For company counts and company listings we use standard data sources, international sources, industry/trade sources, the advertising industry and, with caution, company-published information.

One important fact about the methodology is that in a typical SIC approach to sector analysis, a company is counted once and the value of its activities are very often assigned to a single category (which may or may not reflect what a company actually sells now), within a single sector and from a single geographical location.

This approach is to identify and assign value to different activities within a company that may fall within the same sector and to exclude values associated with different sectors. Where possible, they also break the reported activity down within larger multi-site companies so that only the value created within a region/LA is reported for that region/LA.

By analysing a sector in this way, we are able to capture the economic value generated by all "specialist" and supply/value chain companies, without any double counting of value. However, the methodology does mean that a single company may contribute value to multiple activities, and we have to be careful not to double-count companies. To avoid this we assign portions of a company, for counting purposes, to the activities that account for most of its sector sales. This does mean that on some occasions some of the smaller activities in our analysis may have a financial value in the sales column but a zero in the company column.

Employment: When financial values and company numbers have been calculated the methodology then looks at the employment base for the sector. The analysis of employment includes HR/Recruitment industry data, trade/industry data, government statistics, company reported employment levels and a variety of industry

benchmarks that show employee input ratios into different products and processes. They do not survey companies directly for this information.

From these different sources we calculate employment numbers for LCEGS sector activities, taking into account how staff can operate processes that produce products for different markets. We, therefore, measure our employment numbers in Full Time Equivalents (FTE), equivalent to a standard 40 hour week.

Growth: Sales Growth is both an historical and a forecast measure and the methodology applies the same multi-source rigour to assessing growth that has already occurred as to growth that may occur. Growth forecasting shows the importance of both multi sourcing AND tracking the historical reliability/accuracy of sources used. It is based upon continuous monitoring of forecast "opinions" that are constantly being updated and re-evaluated, as a result "in-year" measurements of predicted growth can vary depending on when the sample is taken and change as sources respond to events like recession.

For this reason, we measure annual growth as a) a value frozen at a point in time and b) a time series (monthly or quarterly) measured throughout the year. In this file we include only the single (frozen) forecast. Separate files with detailed time series forecasts and trend analysis for the markets in this study are available.

Annual growth figures are useful in calculating and comparing the future contribution of sector activities beyond the current baseline. The percentage growth shows the RATE of change, the application of growth rates to the current sales baseline shows the IMPACT of change. Measuring the impact of change in financial terms shows how the ranking and importance of existing activities to the region/local authority may change over time and suggests when and where action may need to be taken to accommodate changes in the employment and company base.

The quoted growth rates in this dataset apply specifically to sales value. A growth in sales is indicative of changes in company numbers/employment but 5% sales growth does not necessarily equate to 5% employment growth. Businesses can achieve growth in different ways and the recession has shown that companies will consume any "slack" before creating new jobs.

Geography: The methodology is designed to locate and measure economic activity at various geographical levels. The smallest unit of measurement is the Local Authority, but it can analyse data at county, sub-regional, LEP, regional and UK level.

When the methodology calculates and measures economic activity at the local authority level it takes into account existing local government boundaries, local GDP calculations and demographics, the postcode location of companies in the sector and any other local data that is available and relevant to the sector. When we measure sales and employment, therefore, our numbers are based upon where the business is located, rather than where people live.

There are some limits to what economic measures can be meaningfully or accurately applied at the local level. This is due to the range and specificity of data sources. Most of the economic development measures within this dataset can be accurately represented at a local level.

A2.3.5 Data Confidence Levels

All kMatrix datasets incorporate a measure of data Confidence Level. This is partly a mathematical function of the historic hit-rate of sources in terms of their previous forecasting accuracy for each metric and activity being measured. Confidence levels vary by activity, measure, geography and forecast year. The focus in the research process is to obtain an across-the board level of data confidence rather than attempt to achieve 100% confidence in any one set of numbers. As each data point has its own set of sources, so each data point has its own level of data confidence. Data confidence levels can vary according to how mature or emergent a product or service is and how mature the reporting systems may be or for any given country.

kMatrix tracks the accuracy of sources over a period of time, with Confidence Levels being built up from the history of the accuracy of a source for a specific metric. The history or 'hit-rate' of a source is held for each metric, with some sources accepted for some metrics and rejected for other metrics, dependent on how accurate they have been in the past. Hit-rates are 'live' and the hit-rate of a source can change over time, as their performance changes over time, with some sources hit-rates being tracked over the last 35 years. The ability to select, reject and assess the validity of the extensive source list, for different markets, metrics and geographies is a fundamental aspect of the kMatrix process.

Confidence levels vary in this study between 83-90% confidence, with most data points concentrated between 85-88%.

A2.3.6 Difference Between Data Confidence Levels and Data Confidence Intervals

Data Confidence Intervals are often used within survey data, where they give an indication of the degree of uncertainty of an estimate within a sample, specifying the range of values likely to contain the unknown population value, by defining upper and lower limits within a data sample.

The difference between this and the Confidence Level above, is it provides the variance, but it weights all data as being equally valid and does not factor in the likely validity of each data source.

In summary, Data Confidence Levels are different to Data Confidence Intervals:

- ***Data Confidence Levels*** estimate the accuracy of a triangulated data point, based on the likely accuracy of each of the multiple sources of data that are used in the triangulation process, through tracking historical accuracy
- ***Data Confidence Intervals*** provide a range of values where the true number could lie, but do not provide detail on the validity of the values used within the production of the range

Confidence Intervals are not provided within the dataset because the data sources within the triangulation process for each datapoint are varied, created for many different reasons and will each have an individual hit-rate.

A2.3.7 "Deep Dive" Example – Employment for Private Sector Contracts of Insulation

This example provides an illustration of how the multi-source approach has been used to calculate labour values. This worked example would give a figure for total number of insulation installers in England (separate study).

The multi-source approach includes six stages:

1. Select the data point

2. Identify the source data
3. Select sources for further analysis
4. Triage the sources to achieve a more consistent range of values
5. Calculate the mean value from the sources
6. Calculate the confidence level

Stage 1 involves selecting the data point. In this example, the data point is England employment for “Insulation”.

Stage 2 involves identifying the data sources that are relevant to the calculation of the data point and is the source list that is used to calculate the value, for this datapoint, it would run to over 4,000 sources.

Stage 3 involves an initial sort and selection from the full list of sources to identify those of the most direct relevance to the data point. They are rejected if they are duplicates, i.e., using 3rd party data, if their hit rate is too low or if the value is excessively high or low with no evidence for deviation.

Stage 4 of the process involves “smoothing” the results by excluding the outlier values from the final calculation. In this case, 75 sources were ultimately selected and these are shown at Table A2.1 and are labelled Source 1 through to Source 75. Their selection depends upon several factors stored within our source management system (columns 4-8 of Table A2.1). These are:

- Value reported (Employees) – only sources showing value that are proximate to other values are included
- Year of data – ideally sources should be current, in this case all are 2021
- Hit rate over the past 5 years – level of assessed accuracy for this source over 5 years
- Number of times accessed – number of times this source has been used previously for this purpose i.e., same data point different years, identical data point different country etc.
- Triangulated – is the data extracted from a larger data set for the purposes of comparison?

Table A2.1 shows that the 75 sources were all current, with employment values between 68,584 and 102,534, hit rates of between 72.3% and 94.8% and had been accessed previously between 34 and 155 times each. The source list is split (52/23) between sources used for triangulation and those that are not.

All the values in the data set are unique, which means that multiple sources that may quote the same value (possibly from an identical source) are eliminated from the final selection.

Table A2.1: Short List of Sources

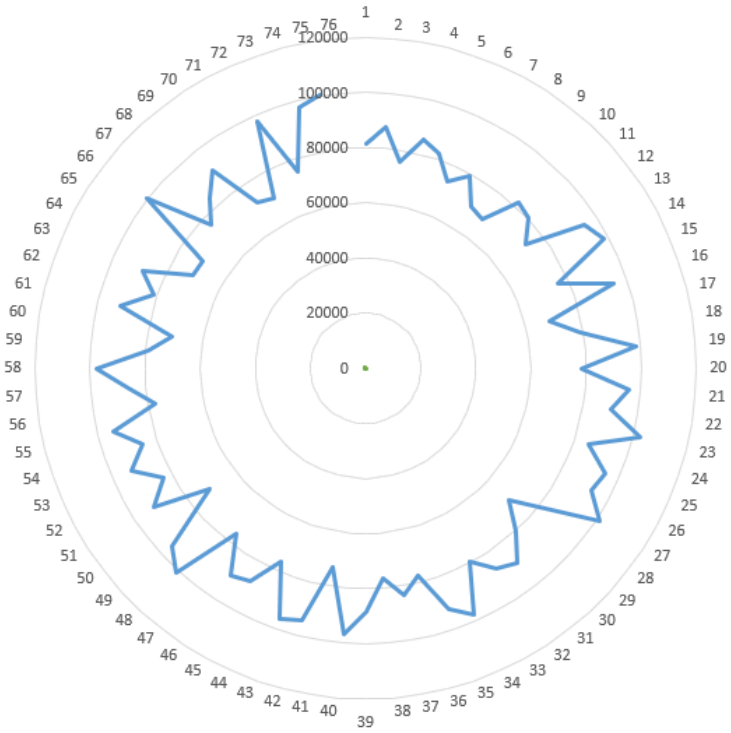
No	DATA Source	Employees	Country	Year of Data	Hit Rate History %	Times Accessed	Triangulated	Accept Reject
1	Advanced Portfolio Technologies	81,325.7	England	2021	92.2	119	YES	accept
2	Advanced Technologies Inc	87,653.9	England	2021	94.7	130	YES	accept
3	Advantage Capital Limited	75,767.2	England	2021	85.7	76	YES	accept
4	Advantage Early Growth Limited	85,430.5	England	2021	73.4	88	NO	accept
5	Advent Venture Partners LLP	82,437.4	England	2021	82.4	57	YES	accept
6	Alliance for Climate Protection	73,971.3	England	2021	89.5	88	YES	accept
7	Alliance to Save Energy	79,444.4	England	2021	76.9	34	NO	accept
8	Alternative Investment Solutions	69,952.1	England	2021	86.4	96	YES	accept

9	Aluminium Federation	68,583.8	England	2021	91.8	77	NO	accept
10	Applied Environmental Research Foundation - AERF	81,753.3	England	2021	84.6	46	YES	accept
11	Architectural & Specialist Door Manufacturers Association	80,385.0	England	2021	82.3	58	YES	accept
12	Architectural Association (AA) School of Architecture	73,458.2	England	2021	72.3	64	YES	accept
13	Architectural Cladding Association	95,008.3	England	2021	76.1	94	YES	accept
14	Architectural Engineering Institute	98,257.9	England	2021	86.3	123	NO	accept
15	Architecture and Design Scotland	76,280.3	England	2021	76.8	126	YES	accept
16	Association for Environment Conscious Building	95,093.8	England	2021	92.7	49	NO	accept
17	Association for Project Management	68,669.3	England	2021	79.6	83	YES	accept
18	Association for Specialist Fire Protection	78,760.2	England	2021	83.4	121	YES	accept
19	Association for the Conservation of Energy	98,514.4	England	2021	90.6	57	YES	accept
20	Association for solar thermal industry	78,503.7	England	2021	77.9	123	NO	accept
21	Association of Average Adjusters	95,863.4	England	2021	75.6	56	NO	accept
22	Association of Builders' Hardware Manufacturers	89,962.8	England	2021	89.7	53	NO	accept
23	Association of Building Component Manufacturers Ltd	102,533.7	England	2021	92.0	133	NO	accept
24	Association of Building Engineers	85,516.0	England	2021	74.6	50	YES	accept
25	Association of Consulting Engineers	94,922.8	England	2021	76.1	108	YES	accept
26	Association of Environmental and Resource Economists (AERE)	93,126.9	England	2021	94.7	61	YES	accept
27	Association of Facilities Engineers	101,165.4	England	2021	78.6	50	YES	accept
28	Association of Rooflight Manufacturers	82,779.5	England	2021	81.0	124	YES	accept
29	Association of Tank & Cistern Manufacturers	70,379.7	England	2021	77.7	73	YES	accept
30	Biomass - Biomass Thermal Energy Council (BTEC)	80,299.5	England	2021	83.2	93	YES	accept
31	Biomass - Pellet Fuels Institute	89,791.8	England	2021	74.2	55	NO	accept
32	Biomass Energy Research Association (BERA)	86,713.2	England	2021	74.1	54	YES	accept
33	Blomberg	79,615.4	England	2021	79.1	85	YES	accept
34	BLT Financial Group	97,830.3	England	2021	76.9	92	YES	accept
35	BNP	92,357.3	England	2021	93.2	114	NO	accept
36	British Architectural Library	77,392.0	England	2021	85.0	102	YES	accept
37	British BioGen	83,292.6	England	2021	77.3	148	YES	accept
38	British Blind & Shutter Association	76,536.8	England	2021	89.4	67	NO	accept
39	British Board of Agreement	88,338.0	England	2021	91.9	127	YES	accept
40	British Cement Association	97,060.7	England	2021	87.5	69	NO	accept
41	British Computer Society	73,201.7	England	2021	79.4	155	YES	accept
42	British Concrete Masonry Association	94,153.1	England	2021	73.3	62	NO	accept
43	British Constructional Steelwork Association	96,120.0	England	2021	77.2	132	NO	accept
44	British Fire Protection Systems Association	76,622.3	England	2021	84.4	62	YES	accept
45	British Floor Covering Manufacturers Association	88,081.5	England	2021	85.3	138	YES	accept
46	British Foundry Association	89,535.3	England	2021	78.5	137	YES	accept
47	British Glass Manufacturers Association	76,023.7	England	2021	75.9	79	YES	accept
48	British Hard Metals Association	101,079.9	England	2021	81.8	36	YES	accept

49	British Hydropower Association - UK	95,435.9	England	2021	79.1	38	NO	accept
50	British Institute of Architectural Technologists	71,662.4	England	2021	81.9	97	NO	accept
51	British Institute of Non-Destructive Testing	91,844.2	England	2021	88.7	105	NO	accept
52	British Laminate Fabricators Association Ltd.	83,207.1	England	2021	94.8	116	YES	accept
53	British Marine Equipment Association (BMEA),	92,613.8	England	2021	81.3	71	YES	accept
54	British Metals Castings Association	85,601.5	England	2021	86.3	112	YES	accept
55	British Metals Federation	94,153.1	England	2021	81.8	69	YES	accept
56	British Non-Ferrous Metals Federation	77,563.0	England	2021	86.3	136	YES	accept
57	British Photovoltaic Association	86,200.1	England	2021	93.1	87	YES	accept
58	British Plastics Federation	97,659.3	England	2021	82.2	91	NO	accept
59	British Precast Concrete Federation	78,931.3	England	2021	94.2	154	YES	accept
60	British Pump Manufacturers Association	71,149.3	England	2021	77.0	60	YES	accept
61	British Quality foundation	91,758.7	England	2021	90.8	44	YES	accept
62	British Resilient Flooring Manufacturers Association	81,411.2	England	2021	84.0	35	NO	accept
63	British Stainless Steel Association	88,338.0	England	2021	79.7	151	YES	accept
64	British Steel Corporation	70,978.3	England	2021	73.0	97	YES	accept
65	British Steel Strip Products	70,807.2	England	2021	84.0	136	YES	accept
66	British Urethane Foam Contractors Association	100,310.3	England	2021	89.5	49	YES	accept
67	British Wind Energy Association	76,451.3	England	2021	76.1	150	NO	accept
68	British Wood Preserving & Damp Proofing Association	83,805.7	England	2021	79.7	124	YES	accept
69	British Institute of Employment Studies	90,732.5	England	2021	90.6	130	YES	accept
70	Polo Tweed	71,747.9	England	2021	87.6	132	YES	accept
71	The Recruitment and Employment Confederation	70,123.1	England	2021	88.3	139	NO	accept
72	Ranstad Education	97,573.8	England	2021	93.7	105	YES	accept
73	Robert Half	75,339.6	England	2021	79.3	106	YES	accept
74	Blue Care	97,573.8	England	2021	77.2	56	NO	accept
75	A O C Jobs	100,395.8	England	2021	92.5	78	YES	accept

Typically, the process for deciding which sources to include/exclude as part of the final calculation is visualised using radar charts. These charts are a key feature of the QA system and provide a rapid insight into the variation in source values. A radar showing sharp and frequent spikes is due for radical surgery, while a radar with a more consistent pattern (representing a degree of consensus in the sources) is subject to judicious pruning. An example of an outlier would be a good which is usually £10, but someone is selling for £90 on Amazon, this would be considered an outlier and removed from the dataset. These are removed from the dataset because an overpriced good can distort a dataset. This process is undertaken by an analyst (not an algorithm) and can take several iterations before a satisfactory final selection of sources is achieved. The final radar chart based upon the final selection of sources is shown at Figure A2.9.

Figure A2.9: Radar Chart for Final 75 Sources



Stage 5 involves the calculation of the mean value from the final list of 75 sources, now ranging between 68,584 and 102,534 employees. The adjusted mean value from this range is 85,106.

Stage 6 calculates the confidence level for the data point, which is an indication of the validity, based on the historic hit-rate of the sources used to triangulate the data point, in this case the confidence level is 83%.

Each data point that progresses through this process is then subject to further checks that ensure that the data point value is consistent with:

- Values in previous year's data
- Comparative values of UK employment compared with employment levels of same service in other countries
- Comparative analysis of UK employment values when related to other Installation services in the same category or family of services
- Consistency in employment trends over time
- Consistency in confidence levels over time

Where any uncertainty about the final data point remains, this may be due to either market uncertainty or data uncertainty. In the case of market uncertainty, the value remains unchanged, but in the case of data uncertainty, then Stages 1-6 are repeated, but this time with additional or alternative data sources.

A2.4 LCEGS and Office of National Statistics Environmental Goods and Services Sector Comparison

The purpose of this appendix is to provide a brief description of some of the differences between the Office of National Statistics (ONS) Environmental Goods and Services Sector (EGSS) data and the LCEGS data provided by kMatrix. The two

methodologies differ in the way data is collected, their methodologies, and in terms of their sector definitions.

kMatrix is a data house that specialises in providing evidential data for business modelling and analysis on a multi-sectoral basis. We provide back-room services to the likes of Deloitte and PWC amongst others in the UK, New Zealand, Australia, US and the EU for sectoral analysis and due diligence for sectoral development and investment. We also provide our business and technology profiling services through these channels to market, as well as direct to universities for technology spinouts and individual businesses for development purposes. Further customers include government departments such as BEIS, Home Office and various local and regional government departments.

The ONS EGSS data is produced primarily for the purpose of national accounting. It is sector-specific, using narrow sector definitions and takes no account of the value or supply chains in a sector. In contrast, the kMatrix methodology was originally designed to help companies by measuring technologies or activities using small taxonomies, to assist with investment and developmental planning. This capability was expanded to provide market data for a number of economic sectors, by creating larger taxonomies to capture as much of the market as possible, including the supply and value chains. Each taxonomy for a sector will draw relevant activities from many other sectors, to fully capture all activity. In this way, the LCEGS taxonomy captures activities across multiple sectors and down the value and supply chains. This difference in *what* is being measured is the fundamental reason why the definitions used by ONS and LCEGS do not align.

The kMatrix methodology uses a unique process of 'triangulation' to measure metrics such as employment and other characteristics of a sector at varying levels of detail. This process has been developed over 30 years and has been adopted by various governments, universities and major corporates to provide economic industry data for hard to measure sectors. It is similar in concept to the triangulation of satellites to work GPS satellite navigation systems. The methodology uses multiple data points which can be economic or non-economic in origin, from a number of different sources to 'triangulate' the value of a product or service in question.

This process is different to the methodology used by the ONS to produce the EGSS data, predominantly because the ONS data relies on self-certification of companies into SIC codes, whereas the kMatrix methodology calculates values based on multiple sources of data. The ONS data is based on where companies choose to classify themselves. kMatrix data looks at the activities of companies and attributes those activities to different sub-sectors. In effect, the ONS system is limited to the ability or willingness of companies to list which sectors their products or services are used in, this method is likely to produce both over and underestimates of market size as companies will attribute more or less of their activities to relevant SIC codes. The kMatrix methodology does not rely on company cooperation but looks at their activities and breaks them down into the levels or sub-sectors they are relevant to.

The kMatrix process operates on a 'bottom up' basis, meaning we look at products and services delivered, rather than company classifications and turnover, which is classed as 'top down' (SIC system). The bottom up process was developed to assist individual companies based on sectoral analysis findings and provide evidential data and advice. By looking at the sector from the bottom up (by each activity, product or service), the sector can be determined in accordance with the relevant sector

definition, whilst allowing the flexibility to 'add in' or 'opt out' of various activities depending on the purpose of the reporting. ONS data itself is not used to produce kMatrix figures, but the kMatrix values can be reported out through the ONS classification system if required.

Table A2.2 shows a comparison between employment analysis for the London region using the SIC classification methodology and the kMatrix methodology for the Manufacturing sector and the Construction sector.

Table A2.2: Comparison of 2011-2016 Employment Data for SIC and kMatrix in London

Methodology	Sector	2011 Jobs	2012 Jobs	2013 Jobs	2014 Jobs	2015 Jobs	2016 Jobs
SIC based	Manufacturing	106,750	108,250	106,750	112,000	108,000	105,250
SIC based	Construction	133,250	150,500	146,500	146,250	145,250	155,750
kMatrix	Manufacturing	137,351	135,943	138,951	141,873	140,308	131,230
kMatrix	Construction	166,629	195,334	177,915	184,022	184,317	199,038
Indexed numbers for the rows above show that growth in the manufacturing and construction sectors is similar for both the SIC and kMatrix definitions		100	101.4	100.0	104.9	101.2	98.6
		100	112.9	109.9	109.8	109.0	116.9
		100	99.0	101.2	103.3	102.2	95.5
		100	117.2	106.8	110.4	110.6	119.4

Sector - LCEGS is made up of elements from many different traditional sectors (including manufacturing, finance, construction, consulting and energy) therefore as a grouping it includes products and services from those sectors that together amount to the total value of the LCEGS grouping.

Scale - The ONS system only produces estimates of the sector size at the country level, whereas the LCEGS data can be provided by Country, Region, City, Local Authority etc.

Table A2.3 shows a summary of the main differences between the kMatrix data and the ONS EGSS data.

Table A2.3: kMatrix and ONS – EGSS Comparison Summary Table

	kMatrix - LCEGS	ONS - EGSS
Sector definition	The LCEGS sector includes the EGSS definition but expands it to include all activities that contribute and enable growth in the sector. Those elements which are excluded from EGSS which are produced for purposes that, while beneficial to the environment, primarily satisfy technical, human and	The environmental goods and services sector is made up of areas of the economy engaged in producing goods and services for environmental protection purposes, as well as those engaged in conserving and maintaining natural resources.

	economic needs or that are requirements for health and safety are included in LCEGS if they contribute to the sector. For more information, please see Appendix 1 and Appendix 2 of this report.	Excluded from the scope of EGSS are goods and services produced for purposes that, while beneficial to the environment, primarily satisfy technical, human and economic needs or that are requirements for health and safety.
Sector size measurement	Triangulation of data from multiple sources	Company surveys via company self-certification
Sector sales coverage	Full value of sales for the sector, including supply and value chain	Only sector sales, not including supply or value chains
Geographic range of coverage	Global, Country, Regional, City & Local Authority	Country
Available data includes	Sales, number of employees, number of companies, exports, growth rates (historical and forecast) & 60+ more metrics	Output, GVA, employee count and exports
For further information and detail on the ONS – EGSS definition: https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/ukenvironmentalaccounts/2010to2015		

A2.5 WPI Economics Introduction to London Green Jobs and Skills

This section includes a summary of WPI Economics' approach to projecting employment up to the year 2050. The employment projected is at the level necessary to meet current policy objectives.

Drawing on the decarbonisation pathways set out by the Climate Change Committee, WPI Economics identified 11 sectors or policy areas, these are set out in the table below:

Net zero focus

1. **Homes and buildings:** Including retrofit, building new energy-efficient homes, heat pumps, smart devices and controls, heat networks and hydrogen boilers.
2. **Low carbon transport:** Including low or zero emission vehicles, aviation and maritime, rail, public transport and walking or cycling.
3. **Power:** Including renewables (such as wind, solar and hydropower), nuclear power, grid infrastructure, energy storage and smart systems technology.
4. **Industrial decarbonisation, hydrogen and carbon capture and storage**: Including hydrogen production and industrial use, carbon capture, utilisation & storage (CCUS) and industrial decarbonisation.
5. **Green Finance:** The concentration of financial activity in Central London means that in our context Green Finance could be a key area to identify separately.
6. **Climate change research & development:** Including private sector, academic and public research.
7. **Climate change strategy, policy, monitoring and planning:** Including public, private and NGO sector strategy and policy, outreach to citizens, environmental monitoring and use of planning system to achieve net zero.
8. **Climate adaption:** Including flood defences, retrofitting of buildings to be resilient to extreme weather/climate events, nature-based solutions to reduce climate impacts and civil and mechanical engineering for infrastructure adaptation.

Broader environmental goals (may have some impact on climate change goals)

9. **Reducing localised pollution:** Including air pollution, water pollution and noise; London has ambitious goals across all three of these areas.
10. **Circular economy:** Including waste management and circular economy.
11. **Urban green infrastructure:** Within a London context this will focus on urban green infrastructure, and include activity aimed at increasing biodiversity directly or through offsetting.

For nine of these eleven sectors, we used LCEGS as a source for number of jobs today, mapping our policy areas to Level 3 subsectors. For three areas (Climate Adaptation, Urban Green Infrastructure and Circular Economy) we used additional datasets provided by kMatrix.

Having established the number of green jobs relevant to the 11 policy areas today, WPI Economics reviewed a wide range of UK-based and international literature to gather sources for anticipated growth rates in green employment in each of the policy areas based on levels of growth achieved if there is a net zero aligned policy programme. Where available, London specific data was used.

Key sources include:

- CCC (2017): UK business opportunities of moving to a low carbon economy

- LGA / Ecuity (2020): Local green jobs - accelerating a sustainable economic recovery
- Building the net zero energy workforce (National Grid)
- Net Zero Housing workforce / London Councils Pathways Report (Parity Projects)
- ILO (2020) The employment impact of climate change adaptation
- Vivid Economics and Barton Willmore (2020) Levelling Up and Building Back Better Through Urban Green Infrastructure: An Investment Options Appraisal
- Green Alliance (2021) Levelling up through circular economy jobs

Based on these sources, we mapped growth between 2020-2050, with growth rates tending to be fastest in the next decade and somewhat slower to 2050 as many net zero targets are delivered and the green sector matures.

We constructed a central scenario on the basis of the apparently most likely outcomes, and a low and high scenario that represent issues such as:

- **Low:** More likely outcome if there are green skills shortages, lower uptake rates of green technology and / or less effective policy
- **High:** Possible outcome if London captures a greater share of exportable green services and makes fast progress towards the 2030 net zero target that allows London green industry to capture more of the market.

We have constructed these using evidence on potentially slower or faster growth rates where available. Where direct evidence to inform these assumptions was not available, we have projected a low growth rate of half the central rate, with the high growth rate then at 150% of the central rate. This provides an indication of the potential variation in outcomes. Key features of the results include that many of the sectors are expected to grow significantly in the period to 2035. This reflects the need to move quickly in the next decade to face the climate emergency. Following this period of very fast growth, yearly growth rates tend to reduce over the years to 2050, but remain significantly above that expected across the economy generally.

Appendix 3 – Boroughs in Sub-regional Partnerships

Sub-Regional Partnership	Borough
Central London Forward	Camden
	City of London
	Hackney
	Haringey
	Islington
	Kensington & Chealsea
	Lambeth
	Lewisham
	Southwark
	Tower Hamlets
	Wandsworth
	Westminster City
Local London	Barking & Dagenham
	Bexley
	Bromley
	Enfield
	Greenwich
	Havering
	Newham
	Redbridge
	Waltham
South London Partnership	Croydon
	Kingston upon Thames
	Merton
	Richmond upon Thames
	Sutton
West London Alliance	Barnet
	Brent
	Ealing
	Hammersmith & Fulham
	Harrow
	Hillingdon
	Hounslow