

WALTHAMSTOW TOWN CENTRE REGENERATION

Economic Development for the Net Zero Workforce



Produced for the London Borough of Waltham Forest by Andrea Dollard - May 2024

1. TERMS OF REFERENCE

- 1.1 This report has been generated on the commission of the London borough of Waltham Forest (LBWF) to advise on how best to regenerate Walthamstow town centre (WTC) so that it can create sustainable wealth, prosperity and employment for the area whilst responding to the needs of the workforce created by the UK pledge of net zero (NZ) by 2050.
- 1.2 The report will focus primarily on how the LBWF can plan for the economic development of WTC, harnessing the growth of green jobs and skills required by NZ.
- 1.3 The recommendations generated from this report are recognised as fairly limited in terms of their scope due to the narrow time frame in which research could be gathered and the report produced. Therefore, it is advised that the LBWF should seek to commission a further in-depth study of the Net Zero strategies and government recommendations in securing sustainable growth around NZ.

2. EXECUTIVE SUMMARY

- 2.1 The UK government has made a commitment to NZ carbon emissions by 2050.
- 2.2 The commitment to NZ will create and determine the economic pathways and activities within the country's cities and towns. With these new pathways and activities, a wave of new highly skilled jobs will be created that require expertise and skills from a new era of employees in sustainable locations.
- 2.3 WTC is dominated by the central Walthamstow market (WM) of traders and surrounding retail outlets, and numerous small and medium sized businesses providing employment for the local community.
- 2.4 The climate change committee (CCC) have recommended that a fifth of workers will have a core role to play in delivering NZ and there is a potential for between 135,000 and 750,000 jobs to be created as a result.
- 2.5 The Net Zero Strategy (NZS) document (2021) sets out the UK governments ambition to support 440,000 jobs across NZ industries.
- 2.5 It is recognised that successful places have the capacity to provide economic access, upskilling and new investment opportunities for its population by strategic and local economic development plan and design.
- 2.6 The regeneration of WTC is an ideal opportunity to create, support and encourage new employment and economic infrastructure that looks to address the changing landscape of employment in meeting the net zero carbon pledge (NZCP).

TABLE OF CONTENTS

1. Terms of reference
2. Executive Summary
3. Abbreviations and Acronyms
4. Figures and Tables
5. Introduction
 - 5.1 Walthamstow Town Centre – Strategic Importance
 - 5.2 Factors of successful Economic Development
 - 5.3 Why does WTC need to consider the Net Zero Carbon Pledge in its economic development?
6. Research Methodology
7. Analysis and Interpretation
 - 7.1 Net Zero Carbon Pledge Background
 - 7.2 Walthamstow Employment Areas and Opportunities
 - 7.3 Walthamstow upskilling, reskilling, and workforce opportunities
8. Recommendations
9. Conclusion
10. References/ Bibliography
11. Appendix/ Appendices

3. ABBREVIATIONS AND ACRONYMS

Climate Change Committee	CCC
Draft Infrastructure Delivery Plan	DIDP
Employment Land Study (Final Report)	ELS
Green Jobs Taskforce	GJTF
Local Plan (Part 1)	LP1
London Borough of Waltham Forest	LBWF
Major Town Centre	MTC
Net Zero	NZ
Net Zero Carbon Pledge	NZCP
Net Zero Strategy	NZS
Net Zero Workforce Report	NZWR
Local Planning Authority	LPA
Small and Medium Enterprises	SME
The London Plan	TLP
Walthamstow Market	WM
Walthamstow Town Centre	WTC

4. FIGURES AND TABLES

Figure/ Table	Title	Source	Report Page
Table 1.1	Sustainability of locations within Walthamstow Town Centre	London Borough of Waltham Forest – Employment Land Study Final Report - Page 35	11
Table 1.2	Recommendation for future land uses	London Borough of Waltham Forest – Employment Land Study Final Report – Page 36	11
Figure 1.1	Employment Area Cluster	London Borough of Waltham Forest – Employment Land Study Final Report - Page 24	10
Figure 1.2	Workers in Waltham Forest	London Borough of Waltham Forest – Local Plan (Part 1) – Page 79	12
Figure 1.3	Potential regional employment opportunities for Net Zero	The Green Taskforce – Report to government, industry, and skills sector – Page 29	13
Figure 1.4	Business Activities	London Borough of Waltham Forest - Local Plan (Part 1) – Page 99	14

5.1 Walthamstow Town Centre – Strategic Importance

- 5.1.1 WTC is designated as a major town centre (MTC) within Waltham Forests Local Plan Part 1 (LP1) and benefits from a diverse community, good transport links and offers residents and visitors homes, employment opportunities, retail centres, service and leisure opportunities providing the boroughs principle and economic hub.
- 5.1.2 The High Street, Hoe Street and St James Street make up the central hub of WTC hosting the highest concentration of diverse retail and a historic long-standing market that provides a range of wares for the residents and visitors alike. LBWF include the market as a key retail asset for WTC and its retention commands strong local support.
- 5.1.3 St James Street is a mix of retail, café, office and residential, and has recently undergone a regeneration resulting in improved shopfronts and public realm. The LP1 vision for the area is to continue the development creating new high-quality homes and a new NHS health centre. Hoe Street is a mix of independent retailers a former cinema under redevelopment to restore the listed auditorium to a 1000 seat performance venue, and will become known as Soho Theatre, Walthamstow. The High Street is the centre of activity for WTC as the historic market occupies the street for 6 days of the week. Outside the market are a number of independent and chain retail units, cafes, and takeaways.
- 5.1.4 Waltham Forest LP1 identifies WTC as a strategic location (Appendix 1). Policies 10 and 38 prioritise WTC as a focus for investment, to facilitate the continued establishment of itself as a primary shopping area. LP1 seeks to strengthen its role as a location for a mix of employment spaces, primary hub for entertainment, culture and evening and nighttime economy. Policy 10 seeks to protect, promote, and enhance WM as a unique community asset of WTC and strives to see improvements to WM, particularly in terms of its appearance, function, and circulation. The strengthening of the retail centre will also be a focus for employment and study through the flexible, creative workspaces and higher education facilities.
- 5.1.5 TLP designates Walthamstow as a strategic and opportunity area for regeneration, broadening employment opportunities for existing communities and highlights Walthamstow's creative industries which it states should be protected and supported.

5.2 Factors of successful Economic Development

- 5.2.1 Successful cities seek to provide a large and diverse range of employment for their communities, particularly within their central areas. Highly skilled employment pays higher salaries which creates better multiplier effects for the local economy.
- 5.2.2 Successful cities often have strengths in culture, entertainment, arts, and education with more specialist industries drawing higher values in revenue and salary through visitors and new residents to the area, a key factor for WTC.
- 5.2.3 Economies with the strongest market often have lower unemployment with a high-quality skill base, the presence of universities or higher education establishments is an important attraction for economic development through student accommodation and consumerism.

5.3 Why does WTC need to consider the Net Zero Carbon Pledge in its economic development?

- 5.3.1 LBWF have laid out their plans within the LP1 that town centres within the district need to evolve and adapt to new challenges and become successful and attractive destinations for shopping, employment, entertainment, and leisure activities.
- 5.3.2 The LBWF draft infrastructure development plan (DIDP) dated Autumn 2020 recognises the boroughs population, and its needs which are constantly changing and that the full impact of COVID-19 has not yet been realised.
- 5.3.3 The employment land study (ELS) published in August 2019 predates the pandemic but made observations about the employment sectors of LBWF stating that it has ‘shifted away from the traditional industrial and manufacturing base towards a more diverse range of activities driven by creative and digital businesses and entrepreneurs. The shift has been driven by a significant increase in the number of micro and small businesses locating and growing within the borough.’
- 5.3.4 The study goes on to summarise that ‘the borough will need to accommodate over 8,100 jobs of the Plan Period to 2035 across all sectors, around a third of which would require new B class employment space – predominantly within office and light industrial typologies’ with an ‘additional 52,000sqm of B class floorspace’ needed spread across office, distribution, and industrial space. The study identifies that there is limited capacity for the space to be created due to the density of Waltham Forest in general and recommends that space is provided by continuation of current activity, intensification of floorspace and co-location.
- 5.3.5 The CCC ‘A Net Zero workforce’ report from May 2023 identifies that a key area for Small and Medium Enterprises (SME), such as those currently located within the borough is the requirement for rapid transition to NZ.
- 5.3.6 This report identifies both risks and opportunities presented by the changes to be brought about by the NZCP for the LBWF and the focus for this report WTC.
- 5.3.7 Firstly, there is a risk for WTC, that without the right policies and infrastructure in place, the SME that local policy seeks to attract will be unable to transit through the NZ response that is required, and WTC will fail to attract new business and lose the opportunity economically develop.
- 5.3.7 Secondly, there are significant opportunities for WTC to attract SME businesses from within this the new employment sector created by NZ and form an education hub for the upskilling and reskilling of both the community of WTC and wider UK workforce.

6. RESEARCH METHODOLOGY

- 6.1 This report explores how key insights of economic development of a NZ Workforce can inform future planning for the regeneration of WTC.
- 6.2 The main methods of research have been focused on the analysis of legislative and advisory reports and supplemented by published literature in economic development. Reports have been interpreted and findings used to provide recommendations to the Local Planning Authority (LPA).
- 6.3 There have been limitations to the volume of current data sources on WTC as most data is set across the whole of the LBWF and much of it predates the Covid 19 pandemic.
- 6.4 Source materials were gathered in a three-stage approach. Firstly, research was conducted on WTC in terms of its strategic and economic importance and the visions designed into the recently adopted LP1. Secondly, research was conducted around the NZCP and the impact and opportunities to be gained economically. Finally, a review of published literature for NZ and economic development.
- 6.5 Much of the source material is focused on online searches of government, and local authority websites, the limitations of such sources for the research are recognised. It is acknowledged with a greater amount of time a larger pool of more diverse sources would generate more valuable data results and recommendations.

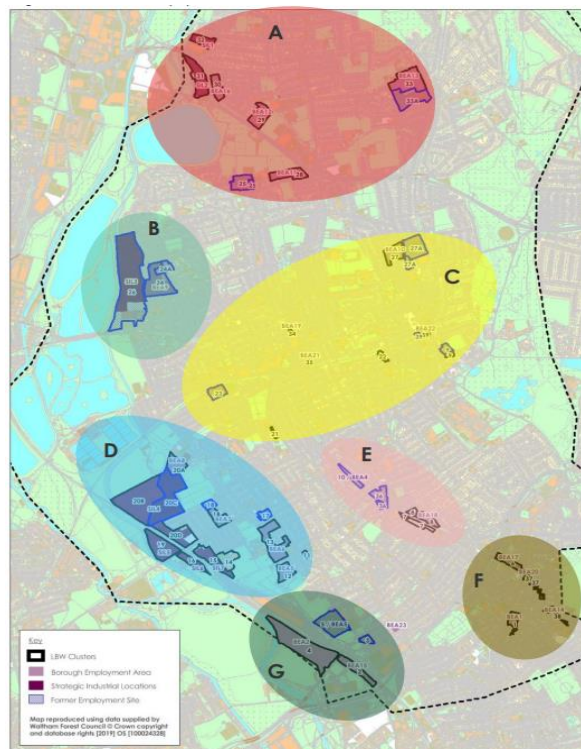
7. ANALYSIS AND INTERPRETATION

7.1 Net Zero Carbon Pledge Background

- 7.1.1 In 2019 Theresa May pledged that the UK would have NZ emissions by 2050. A NZS was later released setting out how in which the UK would achieve this goal, with government funding set to tackle a range of areas including new funding for decarbonising heat and buildings and innovation projects to develop the green technologies of the future.
- 7.1.2 However, it is clear from recommendations from the CCC 'A Net Zero Workforce' report (NZWR) published in May 2023, that LPAs need to prepare for the transition of its workforce with a framework of policy and funding carefully and considerably.
- 7.1.3 The report highlights that a fifth of all workers will have a core role to play in delivering NZ with less than 1% of workers having to phase down their business and 7% of UK workers that will need to adapt their products or services to meet the requirements (Appendix 2).
- 7.1.4 In terms of the transition to NZ it is expected that new jobs will be created in the low carbon sectors but requires policy and planning to invest in the upskilling or reskilling of the market workforce.
- 7.1.5 Appendices 3 and 4 demonstrate an approach recommended within NZWR for policy considerations and NZ impacts.

7.2 Walthamstow Employment Areas and Opportunities

- 7.2.1 The LBWF ELS identifies Walthamstow as an employment area cluster detailed as area C below in Figure 1.1.



- 7.2.2 Walthamstow LP1 states that WTC 'offers a range of small sites with typical characteristics of town centre uses' however the road connectivity for the area is particularly weak but offset

with strong public transport routes into and out of the town. LP1 acknowledges that available sites for economic growth are aging and inferior quality. The borough currently offers excellent opportunities for regeneration of these sites for use in the new NZ growth sector.

7.2.3 The ELS highlights WTC as ‘a good location for production based creative activity and associated professional services and the report recommends that employment space is most likely to be in the sectors of professional services, office-based activities, and workshop and light industrial for the creative industry. Table 1.1 below details the Suitability of locations within WTC suitable for employment use provided by the report.

Sites	Suitable Employment Use								
	Offices	Light Industrial	Industrial	Storage & Distribution	Workspace	Wholesale	Professional Services	Restaurants & cafes	Leisure
BEA10 Clifford Road	Y	Y	N	N	Y	N	Y	Y	N
BEA19 Hatherley Mews	Y	N	N	N	Y	N	Y	Y	N
LBWF22 Ravenswood Industrial Estate	Y	Y	N	N	Y	N	Y	Y	N
LBWF9 Skeltons Lane	Y	Y	N	N	Y	N	Y	Y	N
BEA22 Barrat Road	Y	N	N	N	N	N	Y	Y	N
BEA21 East London Office Centre	Y	N	N	N	Y	N	Y	Y	N

7.2.4 Table 1.2 below summarises the analysis completed by the ELS and provides a recommendation for the future use of the site in terms of its retention, intensification, co-location or residential.

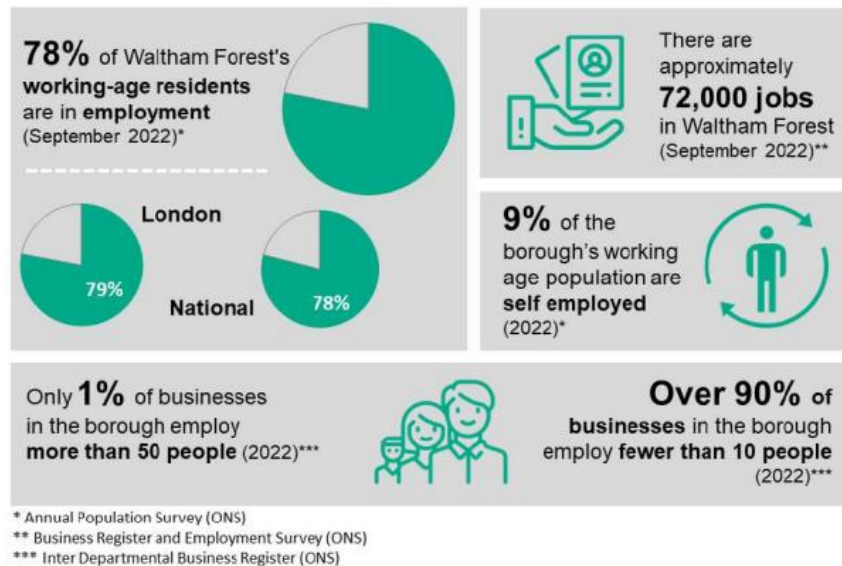
Sites	Size (ha)		
BEA10 Clifford Road	2.6	Site currently cater for low density employment space (mainly warehousing and distribution, with some light industrial use) and has potential to be converted to mixed use developments, re-providing the employment space at ground floor of residential buildings, on parts of the site. Alternatively, site could be converted to pure residential, but employment space would have to be re-provided elsewhere.	Co-location
BEA19 Hatherley Mews	1.7	Proximity to tube station makes the site suitable for continued, higher density, employment activity. Lack of accessibility and constraints around the site (surrounded by residential units) makes it unsuitable for larger industrial/light industrial use so the focus should be office, studio and co-working space.	Retain
LBWF22 Ravenswood Industrial Estate	0.2	Limited potential for intensification of the site due to its location and residential character of the area. Potential for mixed-used may also be limited due to the low density in the neighbourhood. The site could be retained (although providing low density employment) or converted to residential.	Residential/Retain
LBWF9 Skeltons Lane	0.5	Potential of the site for mixed-used development, providing retail space/leisure space and/or office space for professional services at ground floor with residential units above due to proximity to the station and location along a locally important road (local high street)	Co-location
BEA22 Barrat Road	0.8	Currently mainly occupied by builders yard. Located opposite the station, the site as potential for mixed-use development, similarly to site LBWF9 (Skeltons Lane) to accommodate retail/office/leisure space at ground floor with residential above.	Co-location
BEA21 East London Office Centre	0.6	Currently used as office space. Potential to either intensify current use or for mixed-use development as located just off the high street, in close proximity to public transport (underground).	Co-location

7.2.5 The LBWF has policy heavily based around business growth in terms of the occupier needs, technology, sustainability principles and land availability/cost but lacks in consideration for

the effects of NZ in supporting business growth in terms of the needs and changes required by the NZCP.

7.2.6 The NZWR advises that there is potential for employment growth in certain sectors such as those involved the decarbonising of other sectors that would be formed of Small to Medium business enterprises.

7.2.7 The figure 1.2 below, taken from LP1, indicates data from 2022 relating to the spread and type of employment in terms of business model within the borough.



7.2.8 Table 1.2 above identified Clifford Road, Skeltons Lane, Barrat Road and East London Office Centre as locations that would be suitable for co-location and mixed development use. WTC location outside the main centre of London would be ideally suited for SME businesses involved in the decarbonising of other sectors.

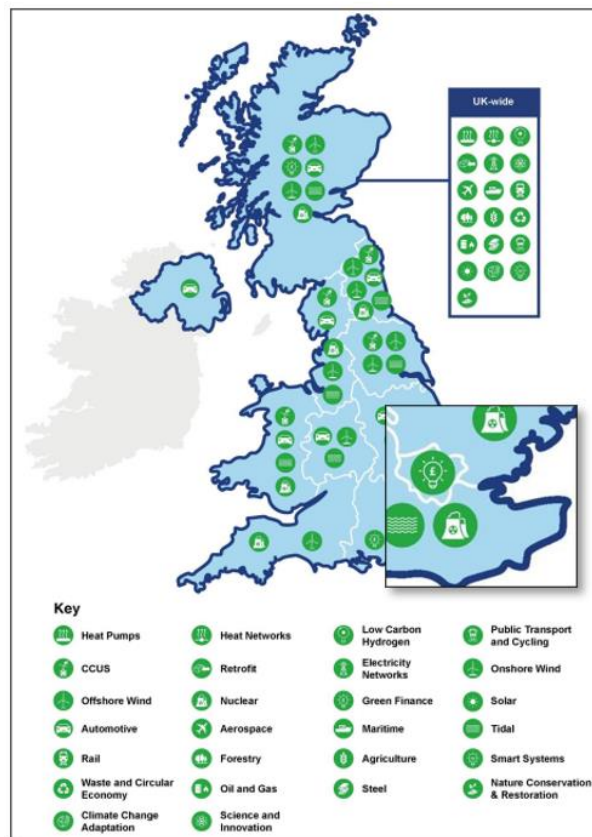
7.2.9 There are significant opportunities for the LBWF to capitalise on this new sector of growth in its regeneration and creation of new places. However, this will require support from clear and strong policy and infrastructure to attract new business to the area and protect the existing.

7.2.10 The local planning authority should engage with the current community and develop the area collaboratively to ensure that existing businesses are supported to adapt or adjust to NZ policy and encourage the community take advantage of opportunities provided to attract new businesses to the area.

7.3 Walthamstow upskilling, reskilling, and workforce opportunities

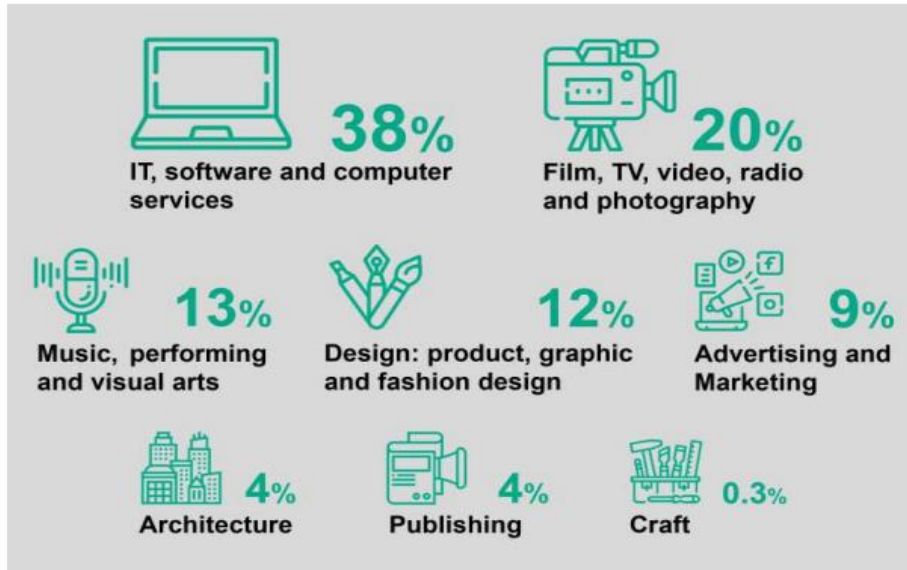
7.3.1 The ELS details that the level of qualification for the population of LBWF remains low despite significantly improving employment rates. Paragraph 2.17 in the report describes the borough having a polarised skill base with 30% of the working age (16 – 65) having achieved a level 4 qualification and 25% of the population with Level 2 and a significantly higher proportion of the population with no qualifications at 21%.

- 7.3.2 The ONS census data from 2021, whilst not set to the same parameters, is indicative of an increase in skills base for the population of LBWF. With over 50% of the population now having achieved a level 4 qualification and a reduction to 10 % of the population having no qualifications at all ranking the local authority 57 out of 331 authorities.
- 7.3.3 Prior to the effects of the COVID 19 pandemic, research for LP1 showed 5% of the residents in the borough were unemployed ranking it the 10th highest in the 33 London boroughs and Waltham Forests ELS identified that 8,100 jobs were needed across the borough.
- 7.3.4 Further research by the NZWR states that ‘in 2019, two fifths of UK workers had a qualification that did not match their employment, with 15% over-qualified and 26% underqualified’. This would suggest that the skills base and market may be inadequate to match skills required with NZ employment. The report goes on to say that ‘for areas where growth is conditional, there is a risk the UK will miss opportunities to capture low-carbon markets if there isn’t a skilled workforce to attract investment’. This is an area of consideration for the LBWF to attract investment for WTC.
- 7.3.5 In its report to government, the green jobs taskforce (GJTF), have made recommendations that the skills required to deliver NZ are assessed in more detail and within figure 1.3 taken from the report (below) illustrate the potential regional employment opportunities and skills needs. London is identified to have the most potential for green finance however WTC has further opportunities for sectors such as science and innovation, waste and circular economy, automotive, smart systems and solar.



- 7.3.6 However, to take advantage of these opportunities the LBWF needs to coordinate with the government, industry and other key stakeholders to ensure the UK has a skilled workforce to deliver NZ.

7.3.7 The NZWR predicts that the areas of business that are expected to see the greatest growth are those of construction and education for the upskilling or reskilling of the community. Figure 1.3 from LP1 breaks down the types of businesses within the borough. This indicates the gap in the market for WTC to expand businesses or draw in investment from the education sector for the upskilling of the community and wider UK workforce in readiness for the high skill employment of a NZ workplace.



7.3.8 The LBWF has recently secured the campus for the University of Portsmouth within WTC, which forms an existing framework for drawing investment from further education organisations. This should be explored in order to seize the opportunity to become a leading area for the upskilling of low skilled workers for the highly skilled needs of NZ.

8. RECOMMENDATIONS

As a result of the discussion above, the following recommendations are made:

8.1 Recommendation 1:

LBWF should revisit the ELS for WTC in light of the shift in employment trends as a result of the Covid 19 pandemic, in addition a detailed employment and skills survey should take place. Current data from the above surveys will provide the foundation of data required to accurately assess the types, density and gaps in employment space and skills and identify what employment space is available.

8.2 Recommendation 2:

Using the information generated from the above surveys and using the data provided by the CCC identify areas of risk, within WTC. This should centre around the risk assessment of high carbon businesses and those reliant on a high carbon infrastructure.

8.3 Recommendation 3:

Identify opportunities and employment space to for the establishment of low/ no carbon or low carbon enabling types of businesses, particularly SME businesses and develop clear analytical framework of policy considerations.

8.4 Recommendation 4:

Identify opportunities within the education sector to take advantage of the needs of the market to upskill WTC community and the wider UK workforce for the needs of high skilled NZ employment sector roles.

9. CONCLUSION

- 9.1 The LBWF within the LP1 has already set out its focus for WTC in terms of strengthening its role as a mix of employment spaces and primary hub for entertainment and culture. The plan particularly seeks to protect the market as a community asset and strengthening the retail centre for employment and study through the flexible, creative workspaces and higher education facilities.
- 9.2 Understanding the opportunities from the NZ growth sector is vitality important for LBWF for WTC, not only to sustain the existing businesses and employment but particularly for taking advantage of new low carbon businesses and to be part of the intellectual growth of NZ in the upskilling or reskilling of its own community and the wider UK workforce.
- 9.3 To build a successful diverse range and volume of employment for the community of WTC and attract businesses and visitors. The LPA need to develop a clear policy and infrastructure for attracting businesses within NZ specialist industries which will provide skilled employment with high revenues for the area through salaries, rates, visitors, and residents to the area.
- 9.4 By implementing the recommendations within the report and developing strategic policies geared towards growing the economy around NZ, WTC can be the forerunner in supporting, encouraging, and growing the new NZ employment sector in London.

10. REFERENCES/ BIBLIOGRAPHY

Greater London Authority (2021) London Plan: The Spatial Development Strategy for Greater London. Available from [london.gov.uk/sites/default/files/the_london_plan_2021.pdf](https://www.london.gov.uk/sites/default/files/the_london_plan_2021.pdf) [Accessed 4th May 2024]

Waltham Forest Local Plan Part 1 – Shaping the Borough 202-2035. Available from https://www.walthamforest.gov.uk/sites/default/files/2024-02/LBWF_LocalPlan_LP1_Feb2024_compressed.pdf [Accessed 4th May 2024]

Waltham Forest Climate Action Plan (2023). Available from [Waltham Forest Climate Action Plan \(Desktop\).pdf](#) [Accessed 4th May 2024]

Waltham Forest Employment Land Study Final Report (August 2019). Available from [Report Contents \(photo\) \(walthamforest.gov.uk\)](#) [Accessed 4th May 2024]

Waltham Forest Sustainable Community Strategy (2008). Available from <https://www.walthamforest.gov.uk/sites/default/files/2021-12/ke11-wf-sustainable-community-strategy.pdf> [Accessed 4th May 2024]

Climate Change Committee, A net Zero workforce (2023). Available from [A Net Zero workforce - Climate Change Committee \(theccc.org.uk\)](#) [Accessed 4th May 2024]

Green Jobs Taskforce, Report to Government, Industry and the Skills Sector. Available from [Green Jobs Taskforce report \(publishing.service.gov.uk\)](#) [Accessed 4th May 2024]

Skills and Net Zero (Expert Advisory Group). Available from [Skills and Net Zero \(Expert Advisory Group\) - Climate Change Committee \(theccc.org.uk\)](#) [Accessed 4th May 2024]

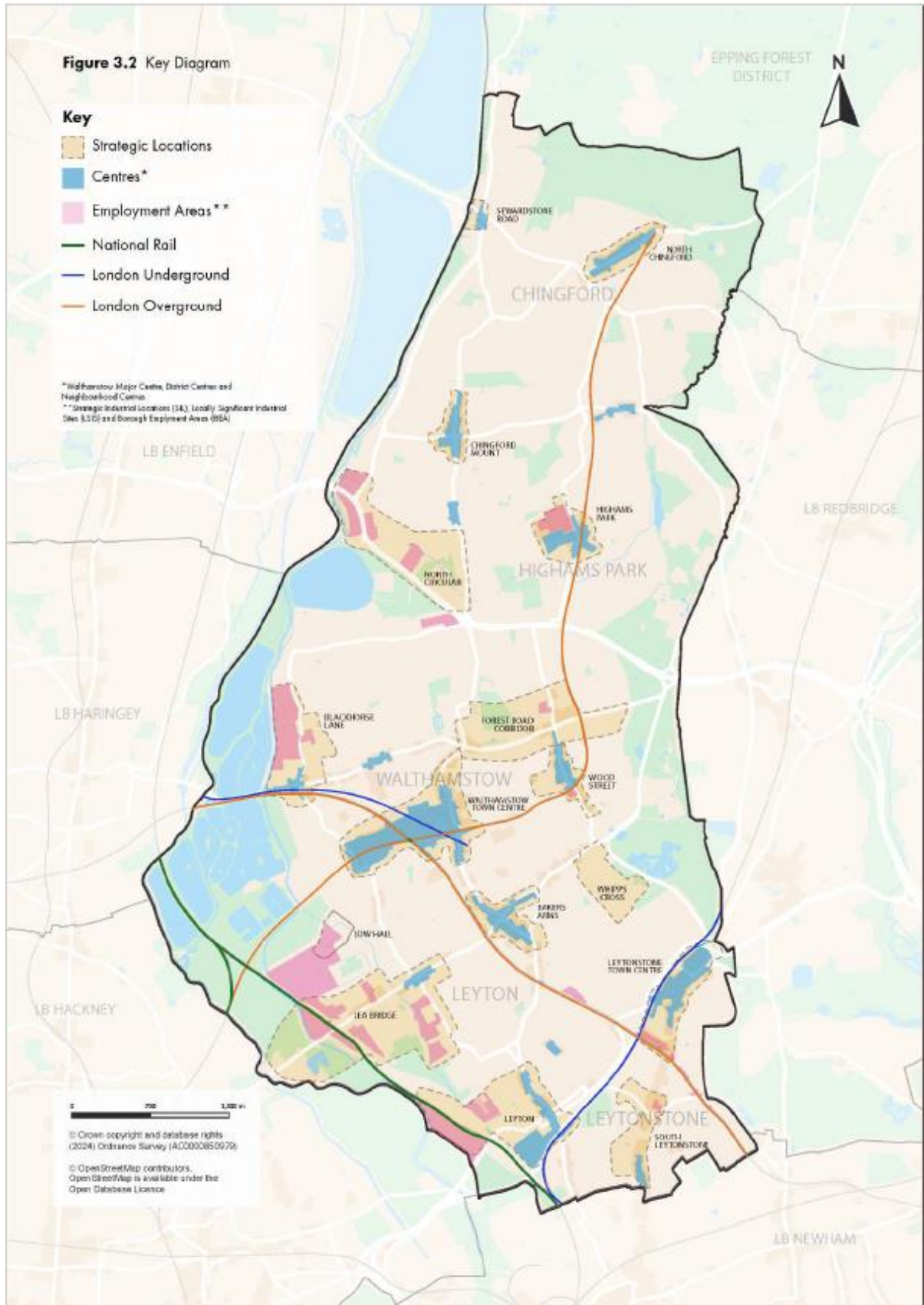
Todaro, M.P. and Smith, S.C. (2020) *Economic development*. Thirteenth edition. Harlow, England: Pearson.

Montgomery, J.B. and Van Clieaf, M. (2023) *Net zero business models : winning in the global net zero economy*. Hoboken, New Jersey: John Wiley & Sons, Inc.

Sarra, J.P. (2020) *From ideas to action : governance paths to net zero*. First edition. Oxford, United Kingdom: Oxford University Press.

Raworth, K. (2018) *Doughnut economics : seven ways to think like a 21st-century economist*. London: Cornerstone Digital.

Appendix 1 – Waltham Forest Local Plan Part 1



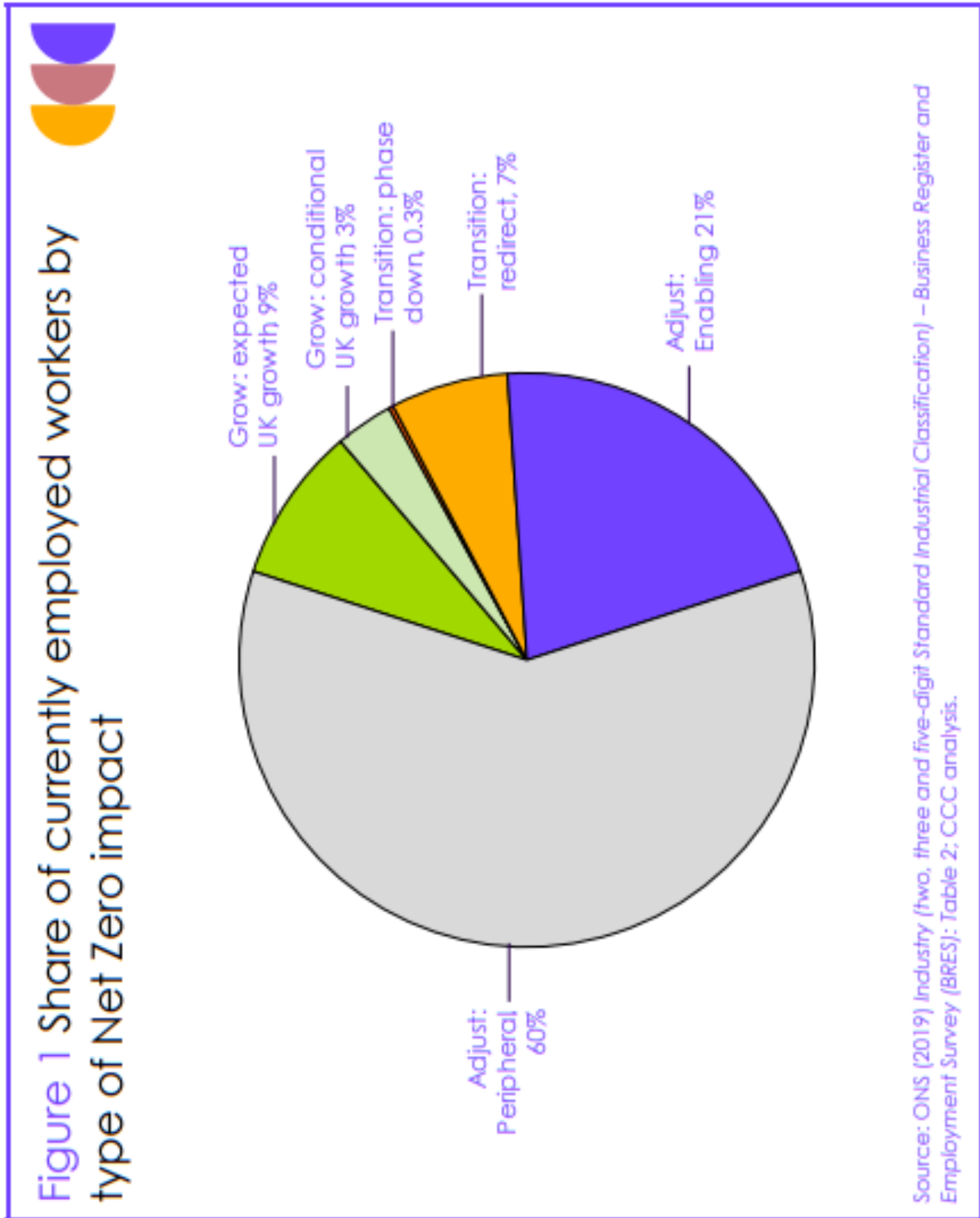
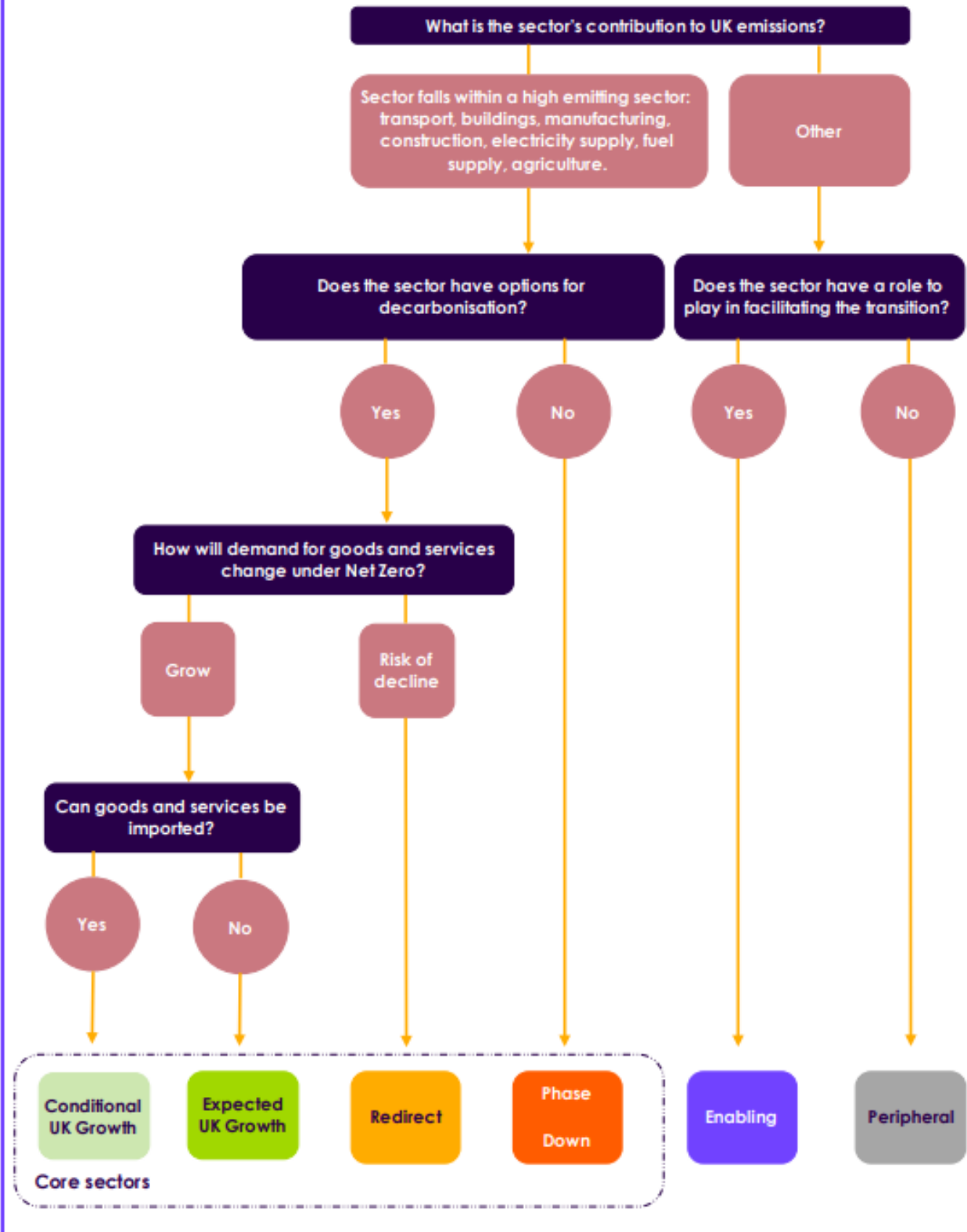


Figure 1.1 Analytical framework for policy considerations



1. How could Net Zero impact a sector?	Grow		Transition		Adjust		Ch2
	Expected UK Growth	Conditional UK Growth	Phase down	Redirect	Enabling	Peripheral	
2. What is the nature of the impact?	Geographic distribution		Employers and employees		Pace		Ch3
	Concentrated	Widespread	Employees	Employers	Rapid	Gradual	
3. What is the labour market context?	Current labour market indicators		Labour market trends				Ch4
	Employment, labour market flexibility and skills mismatches.		Labour market trends including automation, an ageing population and changing migration patterns.				
----- analytical questions ----- ----- policy considerations -----							
4. What is the rationale for policy?	Ensuring Net Zero gets delivered		Protecting workers from disruptive impacts		Harnessing opportunities		Ch5
	Will there be enough skilled workers in the right place at the right time to enable sectors to grow, redirect and enable the transition?		Will impacted workers or communities be able to find other attractive employment?		Will opportunities for sectors to grow, improve diversity, and distribute opportunities across the UK be realized?		
5. Which responses are available?	Workforce-targeted			Cross-cutting			Ch5
	Governance	Financial	Training & skills	Education and skills policy	Industrial policy	Net Zero policy	
	Clear definition of roles. Forward planning and involvement of workers.	Financial support for industries, workers, and local economies.	Programmes to help workers transition.	A flexible and responsive education and skills system to support reskilling, upskilling, and training, through the education and skills system.	Policies to help develop low carbon markets in the UK and avoid offshoring.	Stable, long-term policy to provide clarity to employers, workers, and training providers.	

Figure A1.1 Approach to categorising Net Zero impacts



Case Study

Centrica – Upskilling

With the need to reach net zero by 2050, Smart Energy Experts will play an important role in Centrica's contribution to the green homes revolution.

Many Smart Energy Experts have already been upskilled to fit electric vehicle charging points, accelerate electric vehicle adoption, and install heat pumps. Apprentices will receive technical skills training and knowledge for the job at one of the company's award-winning academies in Dartford, Hamilton, Leicester and Thatcham.

Centrica offers its Smart Energy Experts the opportunity to upskill to become domestic electrical installers with skills in electric vehicle charging point installation, or the opportunity to upskill to achieve gas boiler service and repair capability. The upskilling training for domestic electrical installers lasts 20 weeks, and is offered 12 months after Smart Energy Experts have finished their apprenticeships in one of Centrica's four academies. The gas boiler service and repair programme also takes place 12 months after the completion of the Smart Energy Apprenticeships, and is split over two years.

Every year Centrica's academies train and assess 5,000 engineers, in order to keep all British Gas engineers compliant with the regulatory and industry requirements needed for their specific roles.

Case Study

A National Electrification Skills Framework and Forum – Automotive sector

In 2019, the Auto Council's Skills Working Group identified a common need to better anticipate the transformation to electric vehicle production across employers, employees, accrediting organisations and training providers. The Faraday Institution initiated a project with Warwick Manufacturing Group (WMG) to understand demand for electrification skilled workers over time; determine competencies needed by job family, type and role; and evaluate the existing training landscape and available offers.

In phase two, the team utilised the Foresighting and Skills Value Chain approach demonstrated by the High Value Manufacturing Catapult (HMVC) and Gatsby Foundation in its 2020 report *Manufacturing the Future Workforce*. This argues that transformation of engineering and manufacturing professions to address competency gaps related to emerging technologies requires a connected, systematic response across employers, government investment, innovating bodies, and education and training systems using a consistent rigorous process. Results include:

- **Assessment of Industry Capabilities:** UK vehicle electrification design and manufacturing strategies, roadmaps and plans were assessed by technical specialists to identify capabilities required by UK manufacturing to enable their adoption of battery powered automotive solutions.
- **Definition of Workforce Competencies:** Expert educators defined competency sets for three role groups: Technical Operator, Junior Engineer and Senior Engineer. About 450 competence statements were developed and linked to capability requirements for each role group. These can inform reviews of apprenticeship standards and qualifications.
- **Curation of Existing Continuous Professional Development (CPD) Course Provision:** Expert educators also mapped these competency needs using a range of existing qualifications and sector training providers to develop over 20 unit definitions ranging from fundamental electrical, battery, engineering science and health and safety topics to advanced domain specific requirements.
- **Identification of Future CPD Courses and Development:** Where there is no current suitable CPD offer, the UK Government funded Emerging Skills Project led by HMVC with WMG coordinating electrification content with the group of Institutes of Technology, will create pilot courses and train the trainer content available for roll out to meet demand from mid-2021.

Providing 'line of sight' from technology roadmaps to related workforce development activities, the overall aim of the project is to secure the

competitiveness of the sector. A clear and common path will enable the transformation of the workforce by closely connecting their future skills and opportunities to the demands of technologies yet to be widely adopted. Results will be made publicly available in summer 2021 and a forum among key stakeholders established.

