



SUPPLY CHAIN
Resilience Hub

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Market-based and resources-based opportunity analysis methodology

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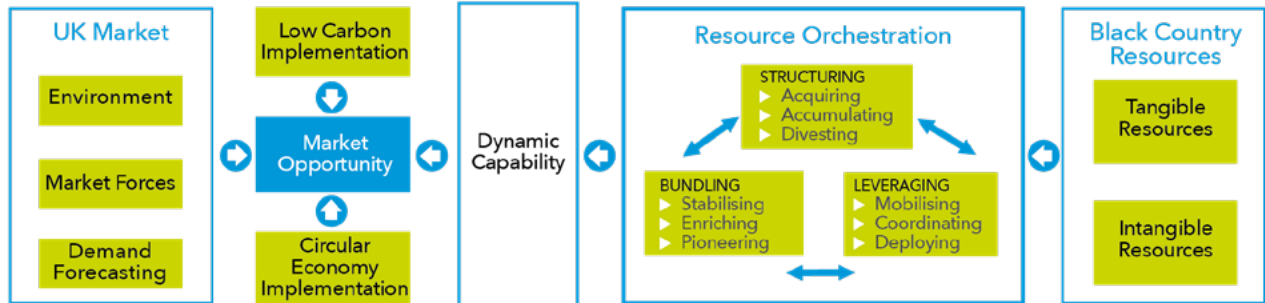
Introduction

In today's dynamic business environment, organisations must identify and capitalise on market opportunities to succeed. Market opportunities can refer to favourable circumstances that allow a company to introduce a new product to an existing market or enter a new market, potentially generating significant profits. It can also refer to the current or potential benefits a geographic area offers to businesses that operate within it. However, identifying market opportunities can be challenging, as it requires a deep understanding of customer needs, market trends, and the competitive landscape.

To overcome these challenges, businesses and regions can use various methodologies to analyse and evaluate potential market opportunities. These methodologies help them identify gaps in the market, assess the feasibility of new products or services, and determine their capabilities. Market and resources-based opportunity analysis methodology is one such approach that uses a structured approach to provide a comprehensive understanding of market opportunity from both top-down and bottom-up directions. This equips companies and regions with the knowledge to make informed strategic decisions for the future.

The Black Country (BC) region is a data-driven case study in this report. The region is focusing on low-carbon and circular economy opportunities in particular. This report highlights four primary and four secondary sectors with future sustainability market opportunities. For businesses, a market opportunity methodology is a systematic approach that enables them to make informed decisions about market entry, product development, and business expansion. For regions, a rigorous market opportunity methodology can help them attract new businesses, create new jobs, allocate limited funds, and map out future regional development strategies.

Methodology Overview



5-Steps Market-Based View (MBV) Approach

According to the MBV perspective, regions are considered homogeneous, and the driving force for the market competition is the branding and positioning efforts of competing areas. Further, according to MBV, identifying an alternative market as characterised by Michael Porter's five forces model is a major strategic issue. The MBV does not consider whether the region is in a position to exploit the available market opportunity.

Step 1: Environment analysis

The first step is to analyse the macro environment, which can adopt the "Political, Economic, Sociological, Technological, Legal and Environmental (PESTLE) model".

Step 2: Market definition analysis

The second step is to analyse the target market. Organisations should start from the definition of the end-user market by asking how they can satisfy end customers' needs with their products and/or service. Market segmentation is also critical to understanding the overall market and its competitors.

Step 3: Customer, competitor and supplier analysis

This process collects information about customers, competitors, and suppliers. Firstly, when collecting customer information, the critical point is to understand customer value. In other words, to understand the customers' perception of what they want to have happened in a specific situation with the help of a product or service offering to accomplish a desired purpose or goal.

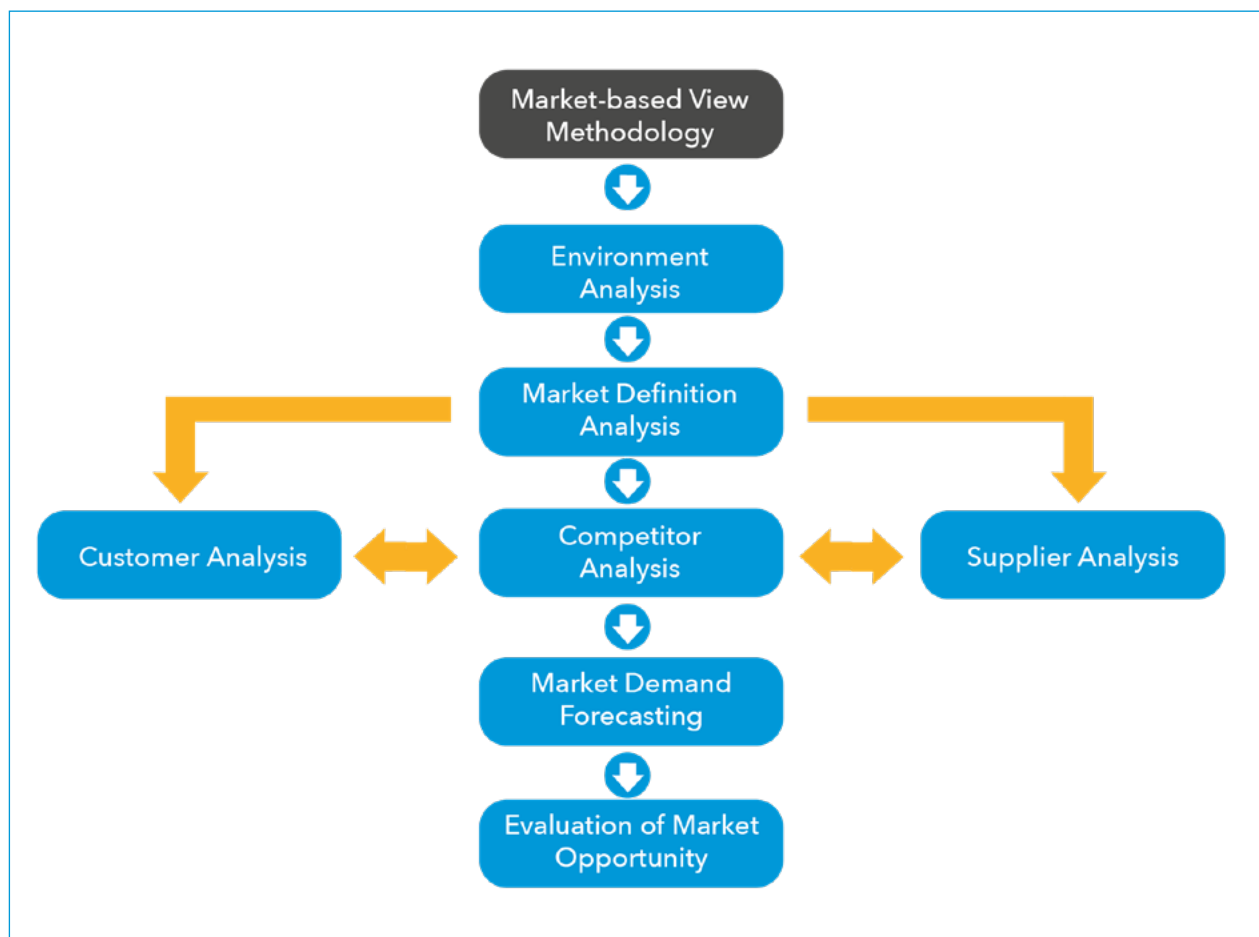
Step 4: Market demand forecasting

The fourth step involves a review of the historical industry set-up and market share. The forecasting may take the following factors into account:

- ▶ The degree of customer value
- ▶ The importance of circular economy/low carbon in short-, medium- and long-term
- ▶ The ease with which competitors can copy the offering
- ▶ The availability of supply

Step 5: Evaluation of Market opportunity

The last step is to evaluate the market opportunity and assess market size. Organisations should conduct a Strengths, Weaknesses, Opportunities, Threats (SWOT) Analysis to examine how their internal capabilities can match the external environment. From the analysis, organisations can make detailed investment strategies for the corresponding markets.



Four-Steps Resource-Based View (RBV) Approach

The RBV is a way of viewing the firm and consecutively of imminent strategy. RBV considers the firm as a bundle of resources. These resources and how they are combined make firms different and, in turn, allow a firm to gain a competitive advantage. This concept of RBV is quite different from the traditional MBV.

Step 1: Define the resources

The first step is to define the resources into tangible and intangible categories. Those resources and capabilities must be heterogeneous and immobile. A VRIO framework can be employed to determine if the resources are valuable, rare, costly to imitate and organised to capture value.

Step 2: Resource orchestration

Suppose the VRIO framework identifies such resources are available. In that case, the BC region should try to protect and utilise them to create comparative advantages and transform the resources into capabilities through structuring, bundling, and leveraging.

Step 3: Regional capability

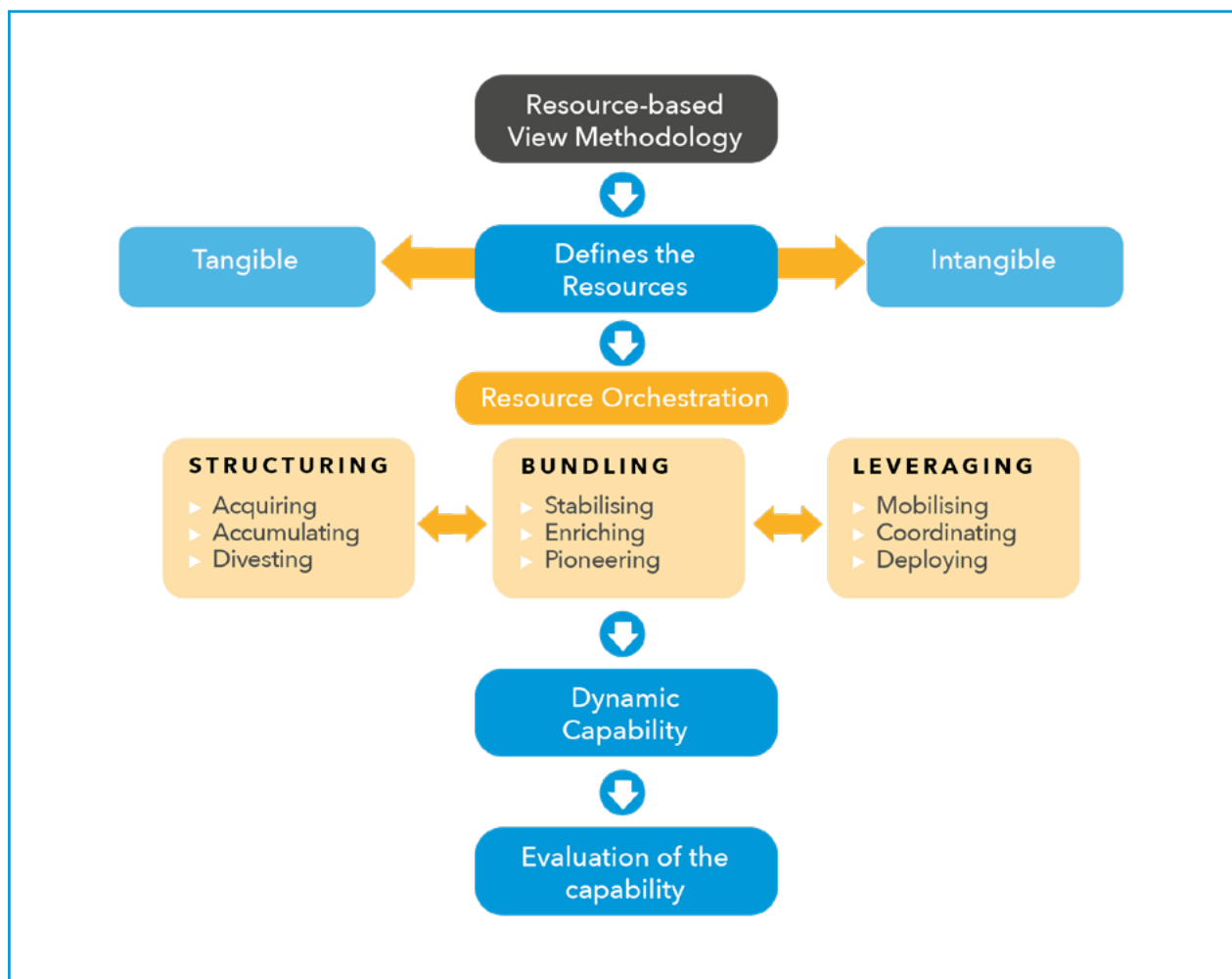
This step categorises the regional capabilities transformed by resource orchestration and looks at them dynamically. That is, integrate, build, and reconfigure internal competencies to address the changes in the business environment.

Ten major categories of capabilities can be summarised:

- | | |
|-----------------------------|---------------------------------|
| ▶ Strategic management | ▶ Product & service development |
| ▶ Cross-sector relationship | ▶ Production |
| ▶ Supply chain management | ▶ Sector support |
| ▶ Finance & measurement | ▶ Marketing & Recognition |
| ▶ Raw material availability | ▶ Human resource availability |

Step 4: Evaluation of the capability

This step will align the regional capability with the market opportunity identified previously to identify the best market opportunities for the BC region to seize.



Case Study

In our research, we have chosen the Black Country (BC) region as a case study to analyse its market opportunities from a market-based and resource-based view. The BC region, located in the West Midlands of England, has undergone significant changes in its economic structure over the years, especially from the sustainability perspective, making it an interesting case to examine. By applying the MBV, we aim to understand how the region competes in its marketplace and how its competitive advantage has evolved. On the other hand, the RBV helps us understand how the region leverages its unique resources and capabilities to sustain its current growth. Through this analysis, we hope to gain insights into the potential sustainability market opportunities that drive the success of the BC region in the future and provide recommendations for policymakers and businesses to support its long-term economic development.

By utilising the above methodology and collecting the data from the BC region, we identify four primary sectors with market opportunities for the BC region.

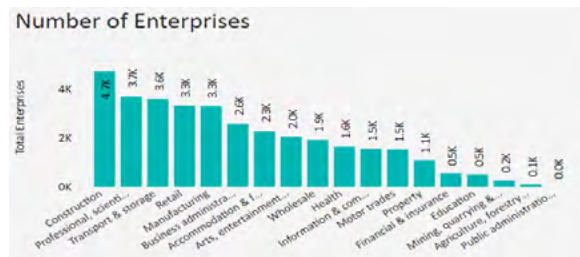
Market Opportunity 1: Advanced Manufacturing

- ▶ The BC has both a well established advanced manufacturing background and facilities, which can further grasp the coming opportunities in advanced manufacturing globally.
- ▶ The BC has already had a strategy towards further developing advanced manufacturing capability and is aligned with greater regional targets.
- ▶ The BC should utilise the existing enterprise zones to develop the industry symbiosis further to mitigate the potential impact of global disruptions.
- ▶ The BC should leverage its education and scientific resources to promote innovative ideas and transform them into action, hence increasing the enterprise birth rate.
- ▶ The BC should be aware that manufacturing might lead the region to lag behind with total output because manufacturing generates relatively low gross value added (GVA) compared to the design and sell section.



GVA per head (yearly trend)

Source: Black Country Consortium

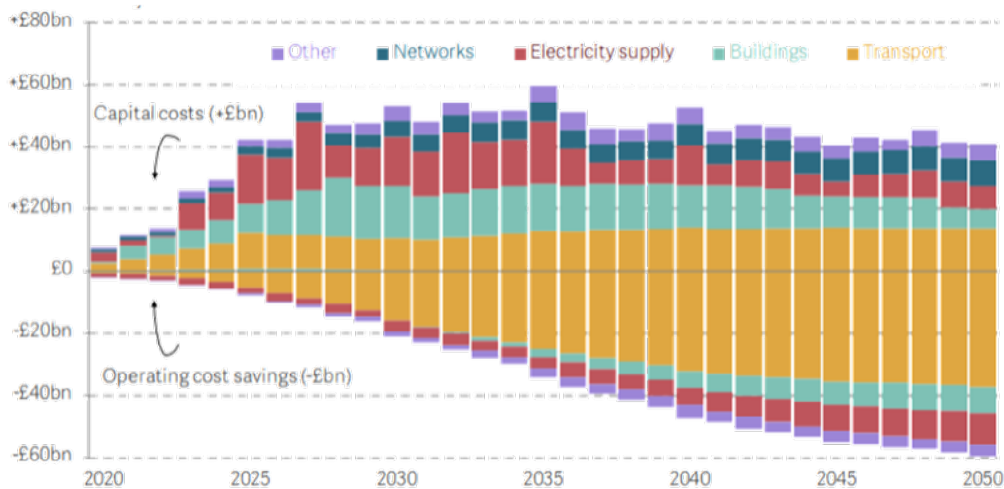


Numbers of enterprises

Market Opportunity 2: Transportation

- ▶ The BC has advantages in transportation technologies as this sector has been identified as one of the region's major sectors.
- ▶ The BC has established long-term strategies to promote regional connectivity while multiple rail route plans are in the pipeline.
- ▶ According to the climate change committee analysis, the transportation section is the only section that provides a relatively shorter period of return on investment in terms of net zero.

The cost saving from a Net Zero pathway: UK



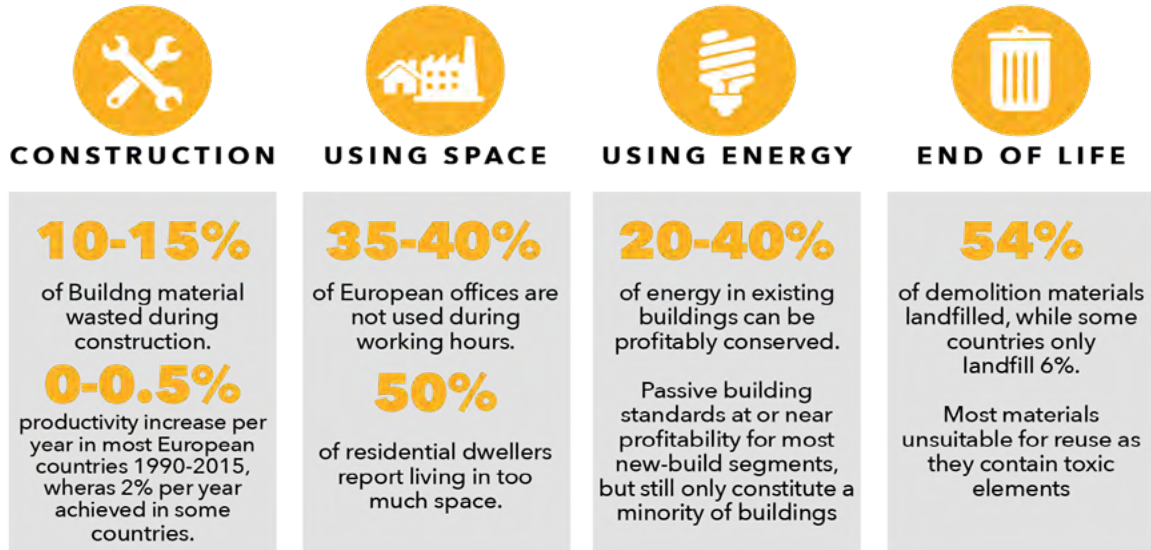
Notes: Value above the x-axis refers to additional annual capital investment. Value below the x-axis refers to savings due to operating cost reductions.

Source: Analysis of Climate Change Committee, The Sixth Carbon Budget: The UK's path to Net Zero, December 2020.

Market Opportunity 3: Construction

- ▶ Construction is another substantial section within the BC region. The BC region has committed to a long-term plan to increase the population, which requires more places to live.
- ▶ The BC's geology is very rich in industrial minerals. Limestone, ironstone, fireclay, coal and other industrial minerals is perfect for the construction sector.
- ▶ Although this sector is not one of the intense carbon sectors, it has massive potential in the circular economy. According to the European Commission, 1% of resource efficiency improvement in the construction sector is worth as much as €23 billion for business in Europe.

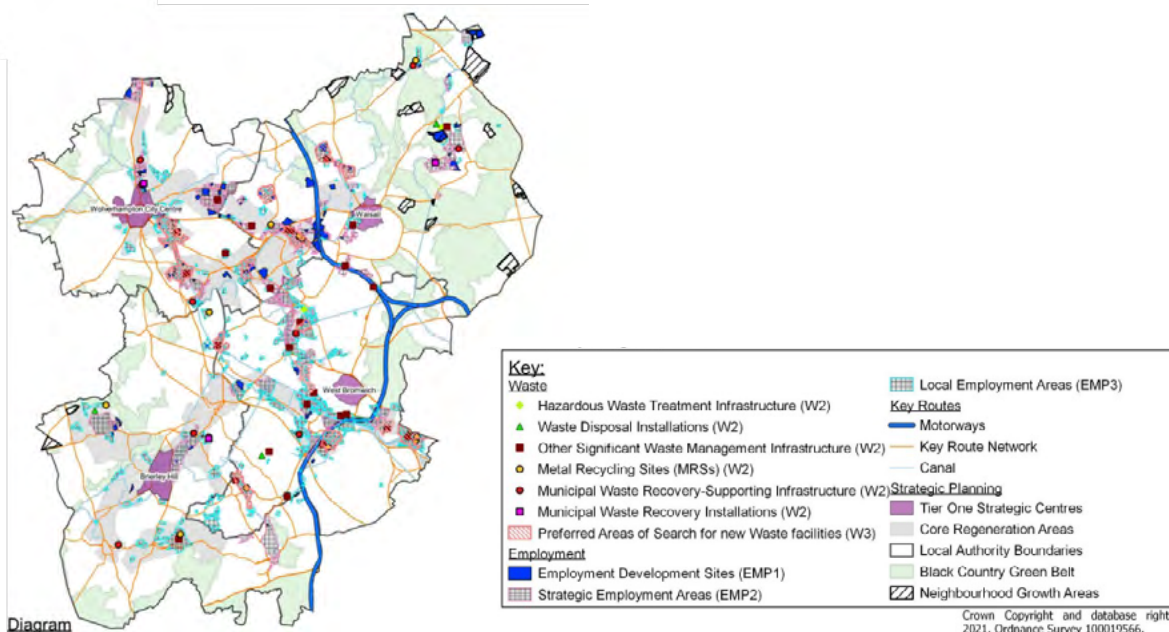
Structural waste in the built environment



Source: FROM PRINCIPLES TO PRACTICES: FIRST STEPS TOWARDS A CIRCULAR BUILT ENVIRONMENT

Market Opportunity 4: Circularity/recycling

- ▶ The BC currently can not only manage the waste generated by itself but also help other regions deal with waste, as the BC has been a significant net importer of waste over the years.
- ▶ The BC can potentially become a regional disassembly centre by combining its advantages in advanced manufacturing.



BC Waste Management Scenarios

SCENARIOS	HOUSEHOLD WASTE	C&I WASTE	CD&E WASTE
Waste Management Scenario 1 (WMS1): no change in recycling performance	No change in household waste recycling	No change in C&I waste recycling	No change in CD&E waste recycling
Waste Management Scenario 2 (WMS2): meet indicative EU Circular Economy targets	65% household waste reuse, recycling and composting by 2030	65% C&I waste reuse, recycling and composting by 2030	c.85% CD&E waste recycling or recovery by 2030
Waste Management Scenario 3 (WMS3): progress towards EU Circular Economy targets	55% household waste reuse, recycling and composting by 2030	55% C&I waste reuse, recycling and composting by 2030	c.80% CD&E waste recycling or recovery by 2030

*C&I: Commercial and industrial, CD&E: Construction, demolition and excavation

BC Waste Capacity Requirements 2018-2039

MANAGEMENT METHOD	TYPES OF WASTE	TOTAL CAPACITY REQUIREMENT (TPA)	OPERATIONAL THROUGHOUT CAPACITY PER SITE (TPA)	NUMBER OF FACILITIES/ LOCATION	LAND TAKE PER SITE
Re-Use and Recycling	Non-hazardous municipal waste	Up to 1,000,000	MRF Between 100,000 and 250,000	4 - 10 (Black Country)	1.5 - 3.0 hectares
Re-Use and Recycling	Inert CD&E waste	Up to 1,000,000	Between 50,000 and 150,000	7 - 20 (Black Country)	1.0 - 1.5 hectares
Recovery	Residual municipal waste	Up to 1,200,000	EIW - Between 150,000 and 400,000 EIW - Around 100,000	3 - 8 (Black Country) 1 - 2 Dudley and or Wolverhampton	2.0 - 3.0 hectares
Transfer	Municipal waste	Around 150,000	Around 150,000	(Walsall)	1.0 - 2.0 hectares
HWRC	Municipal waste	Around 65,000	Around 25,000 Around 40,000	1 (Dudley) 1 (Walsall)	0.5 - 1.0 hectare
Treatment	Contaminated soil	Around 40,000	Around 40,000	1 (Black Country)	Variable
Inert landfill	Residual CD&E waste	Not known	Depends on void space available	Subject to demand (Walsall)	Variable

*C&I: Commercial and industrial, CD&E: Construction, demolition and excavation

In addition, four secondary market opportunities are also identified:

Secondary MO1: Green Energy

- The region has a mining and heavy industry history, which has left behind brownfield sites that can be repurposed for renewable energy development. The region's natural resources also offer opportunities for green energy development. The BC has several large water bodies, including canals and reservoirs, that can be used for hydropower generation. The region is also home to significant agricultural land, which can be used for bioenergy crops such as rapeseed and corn.
- Some of the energy companies in the UK are still using non-sustainable energy, and there is a market opportunity for the region to provide greener energy to the grid.

Secondary MO2: Hospitality

- The hospitality sector has considerable potential to contribute to the GVA in the BC as the average income and population increase over time.
- According to a recent WRAP report, about 1.5 million tonnes of waste in the UK is generated by the hospitality and food service sector each year, about 40% of which is organic waste. This corresponds to an average cost per outlet of £10,000, which adds up to an economic loss of over £1 billion in the restaurant and pub sector.

Secondary MO3: Health and Medical

- Market opportunities are expected from the health and medical sector in the coming decade. This sector is identified as one of the priority sectors in the BC.
- Many aspects of healthcare delivery are resource intense and generate large volumes of waste. For example, hospitals produce approx. 13 kg of waste per bed per day, of which 15-25% is hazardous waste. The US healthcare system wastes over USD 760 billion yearly due to overmedication, unnecessary services, and inefficient care delivery.

Secondary MO4: Digital Tools

- Digital technology companies are more willing to be based in large cities such as London or Bristol, and the BC is not considered to be one of the priority sectors. Once the enterprise zone is well established with multiple potential digital tools sector customers, they might seek market opportunities in the BC region.
- The IT industry is one of the effort's most significant enablers – primarily when technology provides scalable solutions that drive real value. Global sustainability experts have identified seven distinct types of digital technology that already do, or soon will, play a critical role in implementing and furthering thousands of circularity initiatives: digital access, cloud, cognitive, blockchain, fast internet, Internet of things (IoT) and digital reality.



Getting in touch:

To find out further information on how the methodology can help you, get in touch with our team at:

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The Supply Chain Resilience Hub is part of WMG at the University of Warwick and supported by the WMG Centre High Value Manufacturing Catapult.

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