A VISION FOR A NATIONAL TEXTILE RECYCLING HUB IN THE UK

A REPORT FOR THE CIRCULAR FASHION INNOVATION NETWORK

JUNE 2025

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EXECUTIVE SUMMARY

The Circular Fashion Innovation Network (CFIN) is an industry-led initiative which aims to accelerate the UK towards a circular fashion ecosystem. The initiative is led by the British Fashion Council (BFC) and the UK Fashion and Textile Association (UKFT), run in partnership with UK Research and Innovation (UKRI). The programme has six main areas of focus – circular business models, sustainable manufacturing, recycling infrastructure, novel technology, green growth and a diverse and future proof workforce. Running concurrently with CFIN has been the UKFT led ACT UK project which aims to establish the blueprint for Automatic Textile Sorting and Pre-processing facilities (ATSP) within the UK.

It is within this context that the UKFT, together with Circle-8, have progressed a proposed vision for a national textile recycling hub in the UK. This encompasses the development of three ATSPs, alongside an upstream textile chemical recycling plant in the UK. The ATSPs would be spread throughout the UK—with the East Midlands, North West and South West regions being selected as potential site locations. The accompanying chemical recycling facility would then be developed in the East Midlands.

The national textile recycling hub's development phase would commence in 2025, spanning a three-year period to 2028. The chemical recycling plant would then come on-stream in line with phased capacity rollout across the ATSP sites, with all plants becoming both fully phased and operational by 2031. These combined developments would represent an investment of £58 million in the UK economy.[1] Once fully operational the proposed three sorting sites are envisaged to have the capacity to pre-process nearly 150 thousand tonnes of textile waste, with 50 thousand tonnes being subsequently recycled for new clothing fibres via the chemical recycling plant, and the remaining 100 thousand tonnes being directed to further economic uses via alternative textile recycling.

This report aims to quantify the scale of the economic impact associated with the proposed national textile recycling hub on the UK economy and its regions (key findings at the national level are outlined in the below figures). The proposed textile recycling hub could support significant benefits throughout the UK during both the development and operational phases.

During the development phase we estimate that 220 job years will take place directly on the plant sites with a total of 620 job years of employment being supported once the indirect and induced channels are accounted for. The investment is expected to generate a total GVA contribution to GDP of £46 million during the 3-year development phase, with £20 million being generated directly by the development of the four proposed sites.[2] These fit-out activities are expected to benefit the manufacturing sector most strongly during the development phase—supporting 240 job years and £22 million in GVA contributions. Furthermore, the development phase is estimated to generate £4

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[1] The project's developers (Circle-8) estimate the overall investment required for the textile recycling hub at £277 million. However, for the purposes of this study we isolate the proportion to be realised within the UK economy.

[2] GDP is the total value of final goods and services produced in the economy within a given time-period. The contribution of an individual producer, industry, or sector to GDP is measured in terms of gross value added, or GVA. GDP is GVA plus product taxes (like VAT) minus product subsidies.

million of benefits to the public purse in the form of income tax, national insurance, corporation tax and taxes on consumption.

Fig. 1. Textile recycling hub's development phase benefits, UK, 2025-2028[3]

	GVA (£2022m)	Job years	Wages (£2022m)	Taxes (£2022m)
Direct	20	220	12	1.9
Indirect	13	220	8.5	1.1
Induced	13	190	5.5	1.0
Total	**46**	**620**	**26**	**4.0**

Source: Oxford Economics, Circle-8

Note: May not sum due to rounding

Once the recycling hub facilities are fully operational, they are estimated to directly support 340 jobs with an average wage of £35,300. The facilities' direct activities are estimated to have an employment multiplier of 2.1, meaning a further 380 jobs could be generated across the national economy through the indirect and induced channels. The economic activity across the four plants is estimated to directly generate £26 million of GVA contributions to national GDP in 2031. With a further £27 million being generated through the indirect and induced spending—resulting in a total GVA impact of £53 million once the plants are fully operational. Furthermore, the recycling plants' operations are expected to support a collective fiscal benefit to the UK Government Treasury of £9.6 million in 2031.

Fig. 2. Textile recycling hub's operational benefits, UK, 2031

	GVA (£2022m)	Jobs	Wages (£2022m)	Taxes (£2022m)
Direct	26	340	12	3.7
Indirect	15	210	8.7	3.8
Induced	12	170	5.5	2.1
Total	**53**	**720**	**26**	**9.6**

Source: Oxford Economics, Circle-8

Note: May not sum due to rounding

At a regional level, the East Midlands is expected to receive the largest share of the textile recycling hub's overall economic impact. The envisaged plants collectively are estimated to support 440 jobs (through the direct, indirect and induced channels) once fully operational, generating £38 million in GVA benefits throughout the regional economy.

In addition to the economic benefits highlighted it is also important to consider the wider catalytic and environmental benefits. While these can be more difficult to quantify, they will likely have a significant impact on the UK economy and green policy objectives. The UK population purchases more

[3] All figures presented in this report are in constant 2022 prices. We consider a constant price base to compare economic variables over time, adjusting for changes in prices (inflation). This ensures that we can compare variables on a like-for-like basis.

clothes per person than any other European country.[4] With over 1 million tonnes of used textiles being generated each year and around one-third of this total being classified as non-rewearable textiles, thereby going to incineration, landfill or being exported to countries with lower labour costs for recycling.[5] This comes at an expense to the UK economy as it is estimated that disposing of this waste costs the UK economy £200 million per year.[6] Once the national recycling hub is fully operational, we estimate that it could facilitate an annual saving of over £24 million in combined landfill and incineration gate fees by 2028.

Textile waste and disposal costs are only expected to become more pronounced as the fast-fashion industry continues to grow in the UK. Therefore, innovative recycling initiatives such as those encapsulated in the automatic textile sorting facilities and chemical recycling plants are likely to play a greater role in moving the UK towards a circular economy.

[4] UK Parliament, Fixing fashion: clothing consumption and sustainability, February 2019
[5] UKFT, ACT UK , accessed March 2025
[6] Letsrecycle.com, Incineration of Textiles Could Cost UK Economy 200m, February 2025

1. INTRODUCTION

1.1 BACKGROUND

The Circular Fashion Innovation Network (CFIN) is an industry-led initiative which aims to accelerate the UK towards a circular fashion ecosystem. The initiative is led by the British Fashion Council (BFC) and the UK Fashion and Textile Association (UKFT), run in partnership with UK Research and Innovation (UKRI). The programme has six main areas of focus – circular business models, sustainable manufacturing, recycling infrastructure, novel technology, green growth and a diverse and future proof workforce. Running concurrently with CFIN has been the UKFT led ACT UK project which aims to establish the blueprint for Automatic Textile Sorting and Pre-processing facilities (ATSP) within the UK.

These plants pre-process and sort materials to be further processed into recycled fibres. These ATSPs could represent a step forward in transitioning the UK towards a circular economy within the textiles industry. Linked to this, the same textile recycling infrastructure creates potential for both environment and economic upstream benefits nationally, though this is an avenue for future research.

It is within this context that the UK Fashion & Textile Association, together with Circle-8, have progressed a vision for a national textile recycling hub in the UK. This encompasses a development plan for three ATSPs and a textile chemical recycling plant in the UK. The development of these facilities would begin in 2025 with all sites becoming fully phased and operational by 2031. The project is expected to amount to a £277 million investment—with £58 million of this total being realised within the UK and the remaining £219 million spent on capital expenditure based outside the UK. The resulting textile recycling hub would allow for 150 thousand tonnes of textile waste to be processed through the sorting facilities each year, with an estimated 50 thousand tonnes being subsequently processed in the chemical recycling plant. The remaining 100 thousand tonnes of sorted material will be used for alternative textile recycling and will therefore have economic value—however this component is outside the scope of this study. The Circular Fashion Innovation Network commissioned Oxford Economics to undertake an economic impact assessment with the goal of understanding the scale of the economic benefit associated with the envisaged textile recycling hub on the UK economy and its regions.

1.2 INTRODUCING ECONOMIC IMPACT ANALYSIS

The economic impacts detailed in this report draw on a standard assessment framework that quantifies the economic footprint of the proposed national textile recycling hub (the ATSPs and chemical plant) across three distinct channels (see Fig. 3):

- **Direct impact**: relates to the activities of development or operation of the recycling facilities;
- **Indirect impact**: captures the economic activity and employment within the supply chains that support these activities, through the procurement of goods and services from third-party suppliers; and
- **Induced impact**: comprises the wider economic benefits that arise when workers employed at the textile recycling hub, and also by companies in its supply chain, spend their earnings; for example, in retail and leisure establishments.

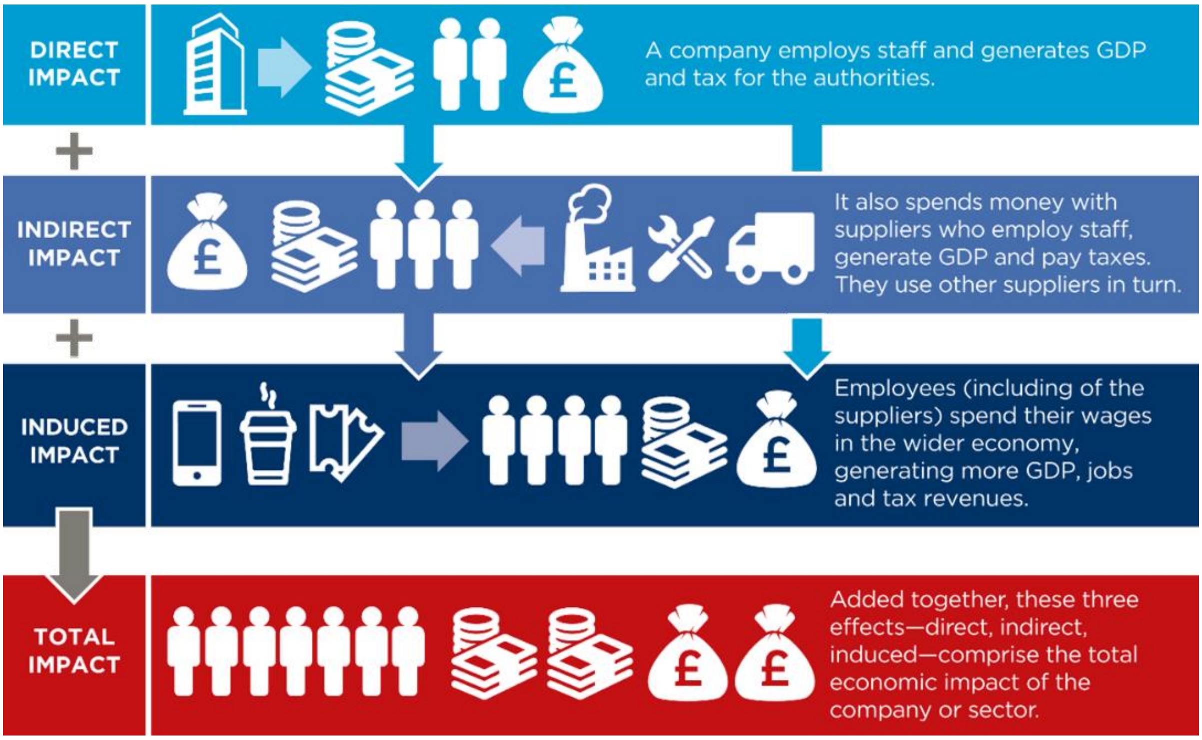
Our estimates of the three channels set out above draws on an economic impact model, which utilises an input-output framework to quantify the economic benefits at a regional and national level.[7] This framework allows us to estimate the indirect and induced impacts that are likely to flow from a given level of investment/activity.

[7] An input-output model uses a matrix representation of a nation's interconnected economy to calculate the effect of changes by consumers, by an industry, or by others, on other industries and therefore on the economy as a whole.

We quantify the economic footprint of the proposed textile recycling hub through a number of metrics:

- **Gross Domestic Product (GDP)**, or more specifically, the proposed developments' gross value added (GVA) contribution to GDP;
- **Employment**, as the number of people employed, measured on a headcount basis; and
- **Tax revenues**, measured in terms of the corporate, employment, and indirect taxes generated.
- **Wages**, the gross salary remuneration offered to workers associated with the economic activity supported.

Fig. 3. The core channels of economic impact



Source: Oxford Economics

We also consider a fifth channel, the **wider or 'catalytic' benefits** that the proposed development can support, reflecting the economic benefits that other industries and/or the local population may derive from the operation of the facilities. While the intangible nature of many of these wider benefits may make them more difficult to quantify than the other three channels, they remain an important consideration for understanding the overall economic impact of the proposed national textile recycling hub.

All figures presented in this report are in constant 2022 prices, unless otherwise stated.[8] They are undertaken on a gross basis, which means they do not take account of any economic activity the industry may displace from other sectors.

[8] We consider a constant price base to compare economic variables over time, adjusting for changes in prices (inflation) over time. This ensures that we can compare variables on a like-for-like basis.

GLOSSARY OF TERMS

Compensation of employees: gross wages of employees in employment (excluding the self-employed), including the value of employees' and employers' social contributions.

Core impacts: the economic 'footprint' of a company or sector within an economy, as measured by the activity relating to the operations and capital spending of the relevant company or sector. The metrics used in the measurement are usually ***GDP*** and ***employment***.

Direct impact: the economic activity that relates to a company or entity's own operations. In this study, the direct impact is taken to be all activity undertaken on the proposed sites during the development phase, in addition to the resulting facilities' core operational activities.

Employment: the number of people employed, measured on a job or headcount basis.

Job years: Employment benefits accrued during the development phase of the proposed recycling facilities are expressed in terms of 'job years'. A job year does not necessarily mean one job. Instead, it refers to the amount of activity that is required. So, for example two people could be employed for 6 months – this would equate to 2 jobs, but only one job year of activity.

GDP, or Gross Domestic Product: the total value of final goods and services produced in the economy within a given time-period. The contribution of an individual producer, industry, or sector to GDP is measured in terms of gross value added, or GVA. GDP is GVA plus product taxes (like VAT) minus product subsidies.

GVA, or Gross Value Added: Measure of the value of goods and services produced in an area, industry, or sector of an economy. Can be understood as either: 1) the value of output (goods or services) less the value of intermediate inputs used in the production process; or 2) the sum of *compensation of employees* (gross wages) and *gross operating surplus* (profits).

Gross operating surplus: profits, defined as earnings before interest, taxes, depreciation, and amortisation (EBITDA).

Indirect impacts: the economic activity generated by the procurement of inputs of goods and services from suppliers.

Induced impacts: the economic activity supported in the economy by all staff employed at the proposed development (direct employment) and those employed along the supply chain (indirect employment) spending their wage income, for example at retail and leisure outlets throughout the country.

Labour productivity: the ratio of GDP per person employed.

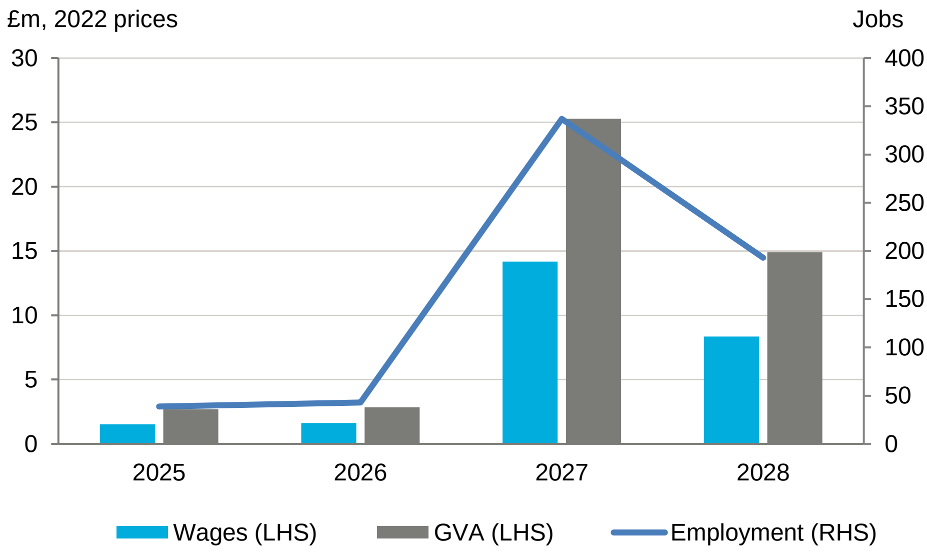
Wider economic or 'catalytic' impacts: refer to the activity in the economy enabled and/or stimulated by the proposed development, beyond the core impacts.

2. THE ECONOMIC IMPACT ON THE UK ECONOMY

2.1 DEVELOPMENT PHASE RELATED BENEFITS

The development phase of the proposed national textile recycling hub would span a 3-year period beginning in 2025 and support an estimated 220 direct job years of employment in the national economy. We estimate a further 410 job years of employment could be supported through the subsequent supply chain and consumer spending related impacts. Average annual renumeration levels across the development phase is estimated to equal £41,800 per job.

Fig. 4. Total economic benefits during the development phase, UK, 2025-2028



Source: Oxford Economics, Circle-8

Furthermore, the economic activity generated during the development phase is estimated to directly contribute £20 million in GVA contributions to the national economy, this increases to a total GVA contribution of £46 million once the indirect and induced impacts are accounted for. The economic activity supported throughout the 3-year development phase is estimated to create a fiscal benefit of £4 million to the public purse.

Fig. 5. Total (direct, indirect, and induced) economic benefits from the development phase, UK, 2025-2028

	GVA (£2022m)	Job years	Wages (£2022m)
Direct	20	220	12
Indirect	13	220	8.5
Induced	13	190	5.5
Total	**46**	**620**	**26**

Source: Oxford Economics, Circle-8

Note: May not sum due to rounding

We estimate that most sectors of the economy will benefit to varying extents during the development phase through the supply chain and consumer spending flows. However, given the proposed facilities' fit-out requirements, it is the manufacturing sector that is expected to be the most prominent beneficiary of the UK based capital investment (£54 million). As a result, the manufacturing sector is estimated to experience the largest economic uplift (£22 million in GVA contributions and supporting 240 job years of employment) over the 3-year development phase.

Fig. 6. Total (direct, indirect and induced) sectoral economic benefits during the development phase, UK, 2025-2028

Sector	GVA (£2022m)	Employment (job years)	Wages (£2022m)
Agriculture	0.2	5	0.1
Mining & quarrying	0.1	0	0.0
Manufacturing	22	240	13
Electricity	0.4	0	0.1
Water supply	0.3	0	0.1
Construction	0.5	5	0.2
Wholesale & retail	4.9	95	3.1
Transportation & storage	2.0	50	1.5
Accommodation & food	0.8	35	0.6
Information & communication	1.3	15	0.9
Financial & insurance	2.6	15	1.1
Real estate	3.9	10	0.2
Professional, scientific & technical activities	3.6	65	2.5
Administrative & support services	1.4	35	0.9
Public administration & defence	0.3	5	0.2
Education	0.4	10	0.3
Human health & social work activities	0.3	10	0.3
Arts, entertainment & recreation	0.3	10	0.2
Other service activities	0.4	10	0.2
Total	**46**	**620**	**26**

Source: Oxford Economics, Circle-8

Note: May not sum due to rounding

Fig. 7. Summary of development phase related benefits, UK, 2025-2028

Investment

£58 million investment in the UK economy.

An estimated 90% of which to be realised within the UK's manufacturing sector.

GVA

£46 million total GDP contribution.

£20 million generated directly via the development of the four sites, with a further £26 million being supported through the indirect and induced channels.

Employment

620 job years of employment.

With an estimated 240 job years created in the manufacturing sector alone during the development phase.

Wages

£26 million in total earnings.

The activity of those directly employed throughout the development fit-out is estimated to support £12 million of this earnings total.

Taxes

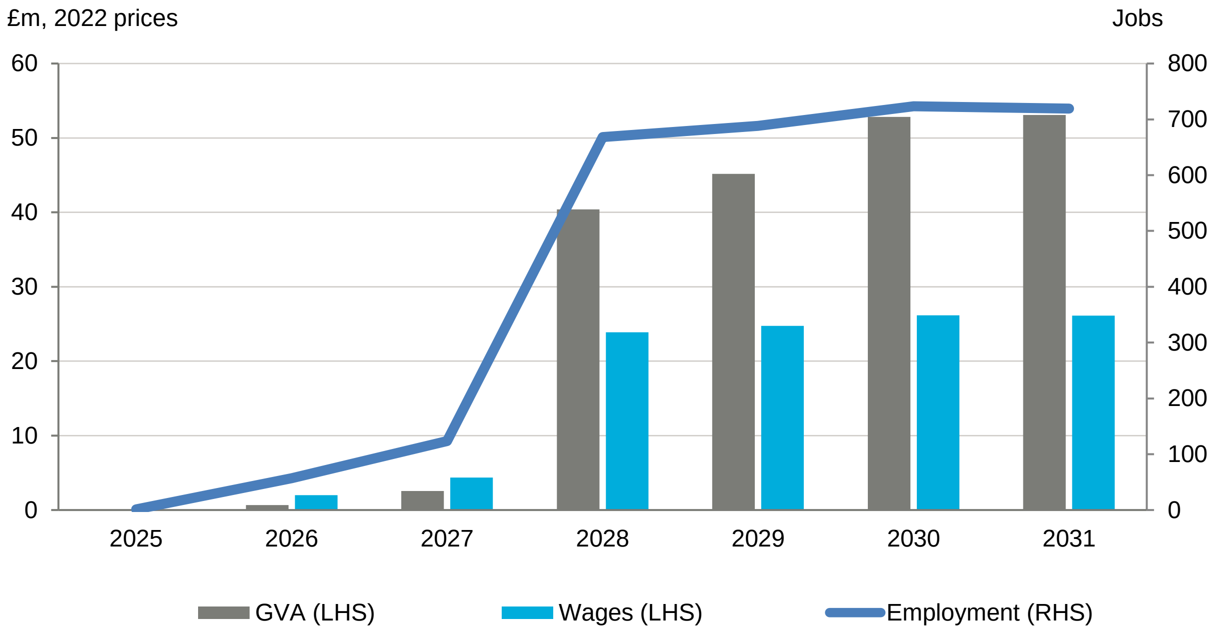
£4 million in taxes generated.

Over the three-year development period including income tax, national insurance and tax on consumption.

2.2 OPERATIONAL PHASE RELATED BENEFITS

Under the proposed scenario, the first of the ATSPs would come online in 2026 and following this all three would reach full operational capacity by the close of 2030. By this stage, the ATSP's will have the capacity to process a total of 150 thousand metric tonnes of post-consumer textile waste annually. The chemical recycling facility is then envisaged to become operational in 2028 and reach full capacity by 2029—allowing for almost 50 thousand metric tonnes of pre-sorted textile waste to be processed into fibres for re-use.

Fig. 8. Total economic benefits during the operational phase, UK, 2025 – 2031



Source: Oxford Economics, Circle-8

By 2031, the recycling plants would be fully phased and are estimated to **directly support 340 jobs** across the four sites, offering an average wage of £35,300. The economic impact model indicates that the recycling plants' activities would represent an employment multiplier of 2.1 within the national economy. This suggests that for every 1 direct job created/ supported across the recycling plants, a further 1.1 jobs would be supported throughout the UK economy via the resulting indirect and induced impacts. The textile recycling hub is therefore estimated to support a **total of 720 jobs across the UK economy** because of this multiplier effect. This employment is estimated to support £26 million in earnings across the national economy.

Fig. 9. Total economic benefits first year at full capacity, UK, 2031

	GVA (£2022m)	Jobs	Wages (£2022m)
Direct	26	340	12
Indirect	15	210	8.7
Induced	12	170	5.5
Total	**53**	**720**	**26**

Source: Oxford Economics, Circle-8

Note: May not sum due to rounding

The recycling activities carried out directly within the proposed textile recycling plants are estimated to support £26 million in GVA contributions to GDP in 2031. An additional £27 million in GVA benefits are expected to be realised via the resulting supply chain and consumer spending channels. Therefore, once full phased, the recycling plants are estimated to make a total GVA contribution to national GDP of £53 million. The national textile recycling hub's collective GVA multiplier equated to 2.1, meaning for every £1 million the recycling facilities directly contribute to national GDP, a further £1.1 is supported elsewhere in the economy via the indirect and induced impacts. Finally, once fully operational, the recycling facilities are estimated to support fiscal revenues of £9.6 million each year.

Fig. 10. Summary of operational phase related benefits (fully phased/ capacity), UK, 2031

Tonnes Processed	**150 thousand tonnes of textiles sorted per year.** With 50 thousand processed at the chemical recycling plant.
GVA	**£53 million total GDP contribution per year.** £26 million will be generated directly by the activity of the four sites, with a further £27 million being generated through the indirect and induced channels.
Employment	**Supporting 720 jobs nationwide** 340 jobs will be created directly across the four sites with a further 380 being generated through the indirect and induced channels.
Wages	**£26 million in earnings per year.** The activity of those directly employed at the recycling facilities is estimated to support £12 million of this total.
Taxes	**£9.6 million in taxes generated per year.** Including income tax, national insurance and tax on consumption.

3. REGIONAL ECONOMIC IMPACTS

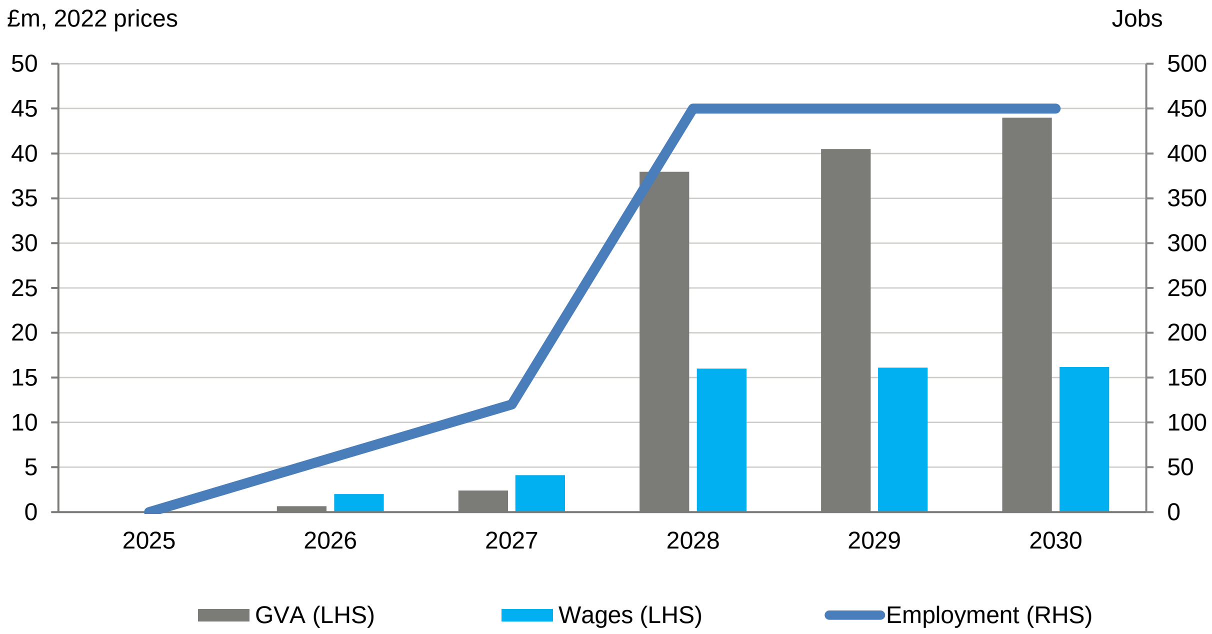
The proposed vision for the national textile recycling hub has individual plants being found in three of the UK regions; the East Midlands, the South West and the North West. While all three of these regions are expected to host an ATSP facility, the East Midlands will also be the base for the proposed chemical recycling facility. This section of the report presents the economic impacts associated with the facilities' collective operations at the regional level.[9]

3.1 THE EAST MIDLANDS

3.1.1 Operational phase

The East Midlands region is expected to experience the largest economic benefit resulting from the proposed textile recycling hub. The region's ATSP and chemical plant's output will be phased into operation with both expected to reach full operational capacity by the end of the decade. Once fully operational both textile recycling facilities will directly support a total of 140 direct jobs in the region, with an average wage of £35,300 per job. The recycling plants' employment benefits within the region are larger still after we consider both the indirect and induced channels of impact. In total, the plants (including those not based in the region itself) are estimated to support a total of 440 jobs throughout the East Midlands by 2030.

Fig. 11. Total economic benefits during the operational phase, The East Midlands, 2025-2030



Source: Oxford Economics, Circle-8

[9] The sum of the regional impacts laid out in this chapter will not equal that of the national total. At the UK level the model considers the degree to which the ATSP's activities are already accounted for within the chemical plant's indirect/ supply chain impacts. Therefore, at the UK level a portion of these impacts are removed to avoid double counting.

The economic activity which will take place within the proposed East Midlands based recycling facilities is estimated to directly generate £17 million in GVA contributions to the regional economy. However, the East Midlands will enjoy further GVA benefits as a consequence of the procurement and wage related spending originating from the proposed recycling plants based both within and outside the region. Therefore, we estimate that the collective plants will support a total GVA contribution of £38 million to the regional economy once fully phased (2030). This level of activity is expected to support fiscal revenues of £3.1 million in the same year.

Fig. 12. The recycling plants' total economic benefits, The East Midlands, 2030

	GVA (£2022m)	Jobs	Wages (£2022m)
Direct	17	140	4.9
Indirect	12	170	7.0
Induced	9.4	130	4.3
Total	**38**	**440**	**16**

Source: Oxford Economics, Circle-8

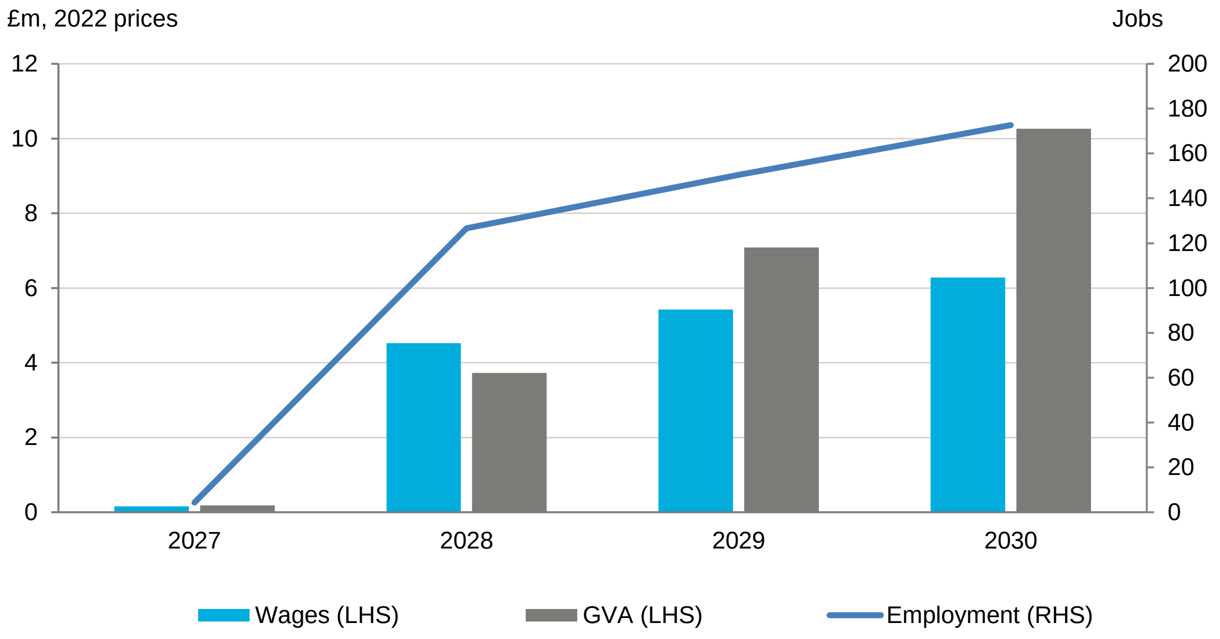
Note: May not sum due to rounding

3.2 THE NORTH WEST

3.2.1 Operational phase

The North West will directly benefit from the proposed development and operations of an ATSP facility that could become operational in 2027 and reach full operational capacity by 2030. Once fully operational the textile recycling facility will support a total of 100 direct jobs in the region, with an average wage of £35,300. The employment benefits within the region are larger still after we consider both the indirect and induced channels of impact. In total, the recycling plants (including those not based in the region itself) are estimated to support a total of 170 jobs throughout the North West by 2030.

Fig. 13. Total economic benefits during the operational phase, The North West, 2027-2030



Source: Oxford Economics, Circle8

Our modelling indicates that the ATSP could directly generate £4.8 million in GVA contributions within the regional economy. However, the North West will enjoy further GVA benefits because of the procurement and wage related spending originating from the proposed recycling plants based both within and outside the region. Therefore, we estimate that the collective plants will support a total GVA contribution of £10 million to the regional economy once fully phased (2030). This level of activity is expected to support fiscal revenues of £1.5 million in the same year.

Fig. 14. The recycling plants' total economic benefits, The North West, 2030

	GVA (£2022m)	Jobs	Wages (£2022m)
Direct	4.8	100	3.5
Indirect	3.2	40	1.7
Induced	2.4	30	1.1
Total	**10**	**170**	**6.4**

Source: Oxford Economics, Circle-8

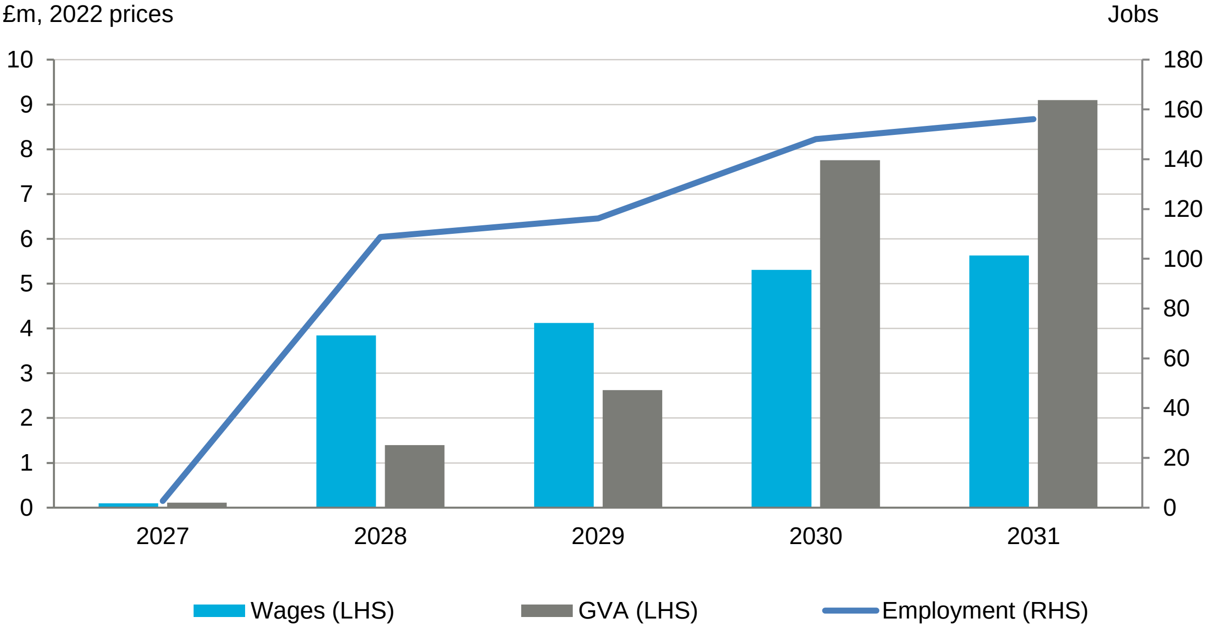
Note: May not sum due to rounding

3.3 THE SOUTH WEST

3.3.1 Operational phase

The South West is proposed to host one ATSP facility which could become operational in 2027 and reach full operational capacity in 2031. Once fully operational the textile recycling facility is expected to support a total of 100 direct jobs in the region, with an average wage of £35,300 per job. The employment benefits within the region will be larger still after we consider both the indirect and induced channels of impact. In total, the recycling plants (including those not based in the region itself) are estimated to support a total of 160 jobs throughout the South West by 2031.

Fig. 15. Total economic benefits during the operational phase, The South West, 2027 - 2031



Source: Oxford Economics, Circle8

Our analysis indicates that the ATSP is estimated to directly support £4.7 million in GVA contributions within the regional economy. However, the South West will enjoy further GVA benefits because of the procurement and wage related spending originating from the proposed recycling plants based both within and outside the region. Therefore, we estimate that the collective plants will support a total GVA contribution of £9.1 million to the regional economy once fully phased (2031). This level of activity is expected to support fiscal revenues of £1.2 million in the same year.

Fig. 16. The recycling plants' total economic benefits, The South West, 2031

	GVA (£2022m)	Jobs	Wages (£2022m)
Direct	4.7	100	3.5
Indirect	2.3	30	1.2
Induced	2.1	30	0.9
Total	**9.1**	**160**	**5.6**

Source: Oxford Economics, Circle-8

Note: May not sum due to rounding

4. ENVIRONMENTAL IMPACTS

4.1 THE SCALE OF THE PROBLEM

Textile flows studies have highlighted that the goal of a circular economy for textiles in the UK will likely require robust domestic reuse and recycling systems to reduce environmental impact. Indeed, material flow analysis of the domestic clothing economy in 2018 showed that more post-consumer clothing is landfilled and incinerated than is reused and recycled. Moreover, only a small fraction of diverted textiles is reused or recycled domestically. This contributes to both the high environmental impact and revenue losses due to landfilling and incineration impacts, underutilisation and increased volumes of exports.[10] However, automated sorting technologies, like the scenario being proposed within a national textile recycling hub, present a possible solution that could enable the industry to turn non-rewearable textiles into valuable feedstock for high-value recycling.

While textile recycling is a global problem, it is more prominent in the UK as per head of the population more clothing is purchased than any other European country. [11] Over 1 million tonnes of used textiles are generated in the UK every year with around one-third of this going to incineration, landfill or being exported to countries with lower labour costs for recycling. [12] It is estimated that disposing of the waste textiles costs the UK economy £200 million per year. This figure is likely to increase as the fast fashion industry, and demand for clothing more generally, continues to grow. Linked to this, waste management costs are set to increase in 2025. [13]

4.2 POLICY OBJECTIVES

Environmental and green policies have been at the forefront of global policy. The most notable of which is the annual United Nations Climate Change Conference, the most recent being COP29 in November 2024 where more than 56,000 participants attended to discuss environmental policy. The main takeaway from COP29 was that progress towards all areas of climate change have been too slow and countries must speed up their transition to net zero to meet the 2050 target.[14] With an estimated 8-10% of global greenhouse emissions coming from the fashion and textiles industry, it is vital that this industry becomes more innovative and moves away from the traditional market model towards a circular economy to help meet net zero targets.

Textile recycling and the circular market has become a focus for governments in both the UK and internationally. The EU's "Strategy for Sustainable and Circular Textiles" has been shaping the circular priorities across Europe since its release. The European initiative is a key part of the European Green Deal and Circular Economy Action Plan. It aims to make textiles more durable, repairable, recyclable, and environmentally friendly by 2030. Key elements of the strategy include:

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[10] Joel Millward-Hopkins et al, "A material flow analysis of the UK clothing economy", Journal of Cleaner Production, 2023
[11] UK Parliament, Fixing fashion: clothing consumption and sustainability, February 2019
[12] UKFT, ACT UK , accessed March 2025
[13] Letsrecycle.com, Incineration of Textiles Could Cost UK Economy 200m, February 2025
[14] United Nations, COP29 Key Takeaways, December 2024

- **Mandatory eco-design requirements** for textiles (e.g., durability, recyclability, use of recycled content).
- **Extended Producer Responsibility (EPR)** schemes to ensure brands take responsibility for end-of-life products.

UK-based brands and recyclers that trade with the EU will need to align with stricter requirements around eco-design, traceability, and end-of-life responsibility, driving demand for more advanced recycling capabilities. This is likely to accelerate investment in fibre-to-fibre recycling, sorting infrastructure, and circular business models within the UK.

Additionally, the EU's implementation of Extended Producer Responsibility (EPR) schemes may influence UK policy, encouraging similar approaches. However, the UK is at risk of falling behind as global investment in textile recycling accelerates elsewhere, particularly in Europe, Asia, and North America. To remain competitive and meet future sustainability demands, the UK must urgently develop and scale its domestic recycling infrastructure and innovation capabilities.

Linked to the above, there are two critical UK legislative updates that will drive up the costs associated with disposing of post-consumer textiles, firstly the Energy Recovery from Waste and the UK Emissions Trading Scheme (ETS) will be expanded to include energy from waste plants meaning UK incinerators will now face a carbon tax. This tax could result in an estimated 66% increase in cost per tonne fees paid for waste processing via incineration (energy from waste plants).[15] Additionally Landfill gate fees are set to rise by 22% from £103.70 per tonne to £126.15, further increasing the costs of disposing of textiles.[16] These increases to costs are aiming to reduce the amount of waste going to landfill or incineration and promote new and innovative cost-effective methods of dealing with waste such as the ATSPs and chemical recycling facility being proposed. Once the national recycling hub is fully operational, we estimate that it could facilitate an annual saving of over £24 million in combined landfill and incineration gate fees by 2028.[17]

Without innovative interventions the UK's textiles industry it is at risk of trailing behind other countries in terms of funding and development for large scale textiles recycling. The introduction of the proposed national textile recycling hub into the UK textile market would be a prominent step towards the transition to a circular textiles market, moving away from expensive manual sorting methods and keeping the textiles within the UK. The proposed development of three ATSPs and a chemical recycling facility will result in an investment of £58 million into the UK economy, alongside 150 thousand tonnes of non-rewearable textiles diverted from incineration or landfill and into a recycling facility once fully operational. Investment in projects like this are crucial to ensure the UK doesn't fall behind other countries and remains innovative in the textiles market with textile waste only set to

[15] Tolvik Consulting, "Response to Joint Consultation on UK Emissions Trading Scheme Scope Expansion: Waste, 2024

[16] Recycling Inside, Why UK Waste Management Costs Will Rise in 2025, October 2024

[17] End of life post-consumer textile destinations were informed by WRAP (Textile Market Situation Report, 2024), while forecasted gate fees were sourced from Tolvik Consulting (Response to Joint Consultation on UK Emissions Trading Scheme Scope Expansion: Waste, 2024)

increase as the demand for fast-fashion brands grows with an estimated growth of 2.5% in 2024-25 alone. [18]

[18] IBIS world, Fast Fashion in the UK - Market Research Report (2014-2029), August 2024

5. CONCLUSION

Through CFIN and ACT-UK, the UK Fashion & Textile Association with the support of Circle-8 have put forward a vision for a national textile recycling hub in the UK. We have modelled this potential investment as encompassing a development phase beginning in 2025 and lasting for three-years, resulting in three automatic sorting facilities (ATSPs) and one chemical recycling plant. They will collectively offer the ability to sort almost 150 thousand tonnes of textiles. Subsequently, 50 thousand tonnes will undergo further chemically treatment into recycled fibres, with the remaining sorted post-consumer textiles not suitable for chemical recycling being directed to alternative economic uses. The development would represent an investment of £277 million—with £58 million of this total being realised within the UK economy.

5.1 THE ENVIRONMENTAL IMPACT

The proposed recycling facilities will help the UK reach key green policy objectives and reduce the environmental impacts of the UK textile industry. Textile recycling is only growing in importance as the UK exhibits the highest demand for clothes per person in Europe and this is only set to increase along with the cost of disposing of these textiles. The proposed plants will be able to process an estimated 150 thousand tonnes of post-consumer textiles each year. As a result, the same textiles can be diverted from both landfill and incineration, thereby equating to an estimated saving of over £24 million in gate fees in 2028. [19]

Environmental policies and initiatives are at the forefront of government policy, the most notable of which is the annual United Nations Climate Change Conference, the most recent being COP29. One of the main takeaways was that progress in all areas of climate change has been too slow and countries must speed up their transition to net zero to meet the 2050 target.[20] With an estimated 8-10% of global greenhouse emissions coming from the fashion and textiles industry, it is vital that this industry becomes more innovative and moves away from the traditional market model and towards a circular economy to help meet net zero targets. Without intervention the UK's textiles industry is at risk of trailing behind other countries in terms of funding and development for large scale textiles recycling. Therefore, the introduction of ATSPs into the UK textile market would be a step in the domestic industry's transition to a circular textiles market.

5.2 THE ECONOMIC IMPACT

The proposed four plants would generate positive economic benefits at both the regional and national level. During the three-year development phase, 220 direct job years of activity will be sustained at the sites with an estimated further 410 job years being supported in the national economy through supply-chain and wage spending effects. The additional economic activity during the development phase is estimated to generate a total GVA contribution to GDP of £46 million

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[19] End of life post-consumer textile destinations were informed by WRAP (Textile Market Situation Report, 2024), while forecasted gate fees were sourced from Tolvik Consulting (Response to Joint Consultation on UK Emissions Trading Scheme Scope Expansion: Waste, 2024)

[20] United Nations, COP29 Key Takeaways, December 2024

alongside £4 million in fiscal revenues (including income tax, national insurance and tax on consumption).

Fig. 17. Textile recycling hub's development phase benefits, UK, 2025-2028

	GVA (£2022m)	Job years	Wages (£2022m)	Taxes (£2022m)
Direct	20	220	12	1.9
Indirect	13	220	8.5	1.1
Induced	13	190	5.5	1.0
Total	**46**	**620**	**26**	**4.0**

Source: Oxford Economics, Circle-8

Note: May not sum due to rounding

Once the plants are fully operational, they are estimated to directly support 340 jobs, with a further 380 jobs being supported through supply-chain and wage spending effects. It is estimated the recycling facilities will directly generate £26 million in GVA contributions in the national economy. With a further £27 million being generated through indirect and induced channels. Furthermore, the plants will support annual fiscal benefits of £9.6 million towards the public purse.

Fig. 18. Textile recycling hub's operational benefits, UK, 2031

	GVA (£2022m)	Jobs	Wages (£2022m)	Taxes (£2022m)
Direct	26	340	12	3.7
Indirect	15	210	8.7	3.8
Induced	12	170	5.5	2.1
Total	**53**	**720**	**26**	**9.6**

Source: Oxford Economics, Circle-8

Note: May not sum due to rounding

6. TECHNICAL ANNEX

INTRODUCTION

Economic impact modelling is a standard tool used to quantify the economic contribution of an investment or series of investments in a regional economy. As set out in the introduction, our economic impact analysis estimates the contribution of the proposed development through three channels:

- **Direct impact** refers to activity conducted directly during the construction and operation of the proposed development.
- **Indirect impact** consists of activity that is supported because of the procurement of goods and services during construction and operations, throughout the economy. It includes not just purchases by occupiers of the proposed development, but subsequent rounds of spending throughout the supply chain.
- **Induced impact** reflects activity supported by the spending of wage income by direct and indirect employees.

DIRECT IMPACT

Circle-8 has provided Oxford Economics with the expected capital expenditure associated with the proposed recycling facilities' 3-year development period. We translate the economic output produced to sectors of the economy, using this as the basis to estimate direct GVA and direct jobs (using local, regional, or national productivity, where appropriate).

In order to quantify the direct economic impact of operational activity, we allocate economic activity to sectors of the economy, and thereby estimate direct operational employment at the regional plants. Again, drawing on estimates of regional productivity within these sectors, we are able to estimate the direct contribution to GVA.

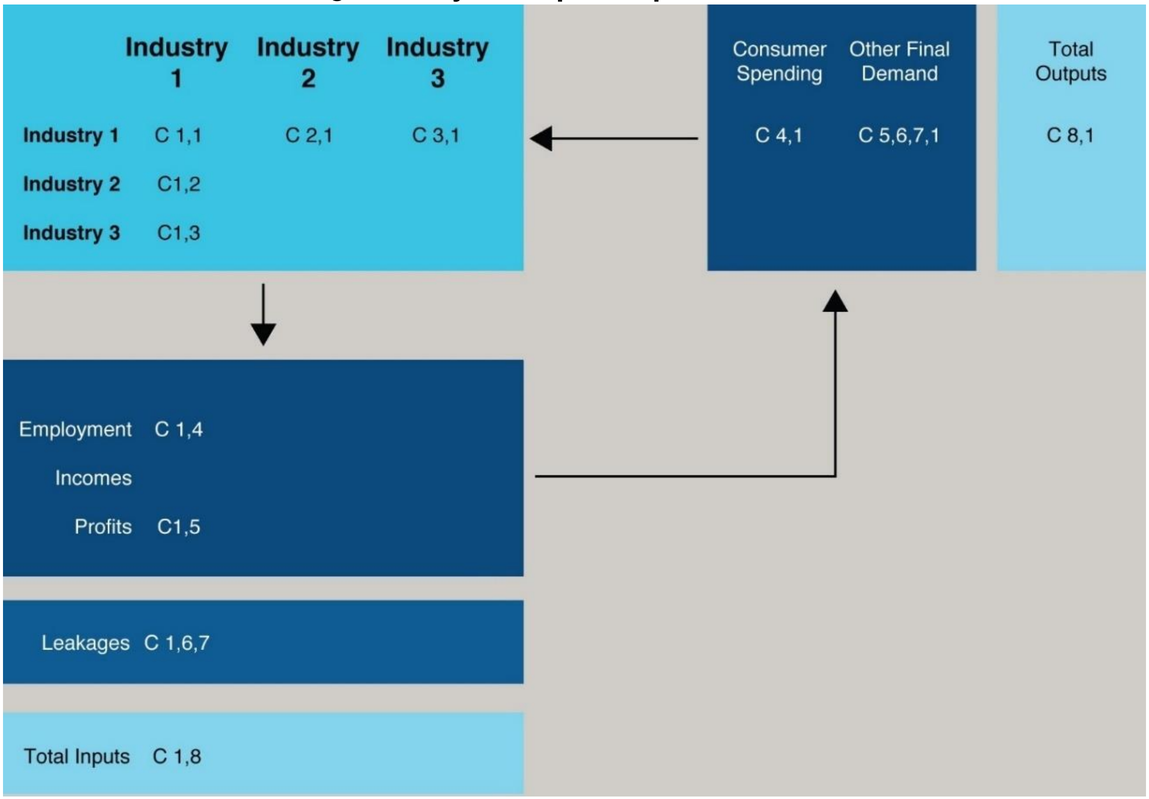
INDIRECT IMPACT

In order to quantify the supply chain (indirect) and wage consumption (induced) multiplier effects, we have developed an economic impact model to assess the likely economic impact of the development and operational phases both regionally and nationally. This model draws on a national input-output framework, which tells us how much we expect firms to spend with domestic suppliers, and on what goods and services they are likely to purchase, across the UK economy. However, it does not tell us where this spending occurs. Drawing on or economic impact model, we estimate the spatial distribution of spending by drawing on the characteristics of regional and national economies—in terms of their relative size and the degree of specialisation by sector—and their geographical proximity to the proposed development site.[21] In a similar process to assessing the direct impacts, we draw on the sectoral composition of spending within the economy—both stimulated by firms

[21] Our methodology utilises so-called 'Flegg-adjusted Location Quotients (FLQs)', which are consistent with the latest approaches and evidence in regional input-output (I-O) modelling and regional science.
Flegg & Tohmo, "Estimating Regional Input Coefficients and Multipliers: Working Paper", 2013, accessed 2023.

operating at the proposed development (indirect impact) and households (induced impact)—to calculate GVA and jobs.

Fig. 19. A stylised input-output model



DISPLACEMENT

Displacement can be defined as the proportion of impacts generated by the proposed recycling facilities which are offset by reductions in economic activity elsewhere. In order to consider the potential for displacement during the development phase, the current level and capacity of the sector was reviewed, and its outlook for growth. This analysis indicates that the sector would have capacity to absorb the additional activity arising from the proposed recycling facilities, which is unlikely to result in a significant degree of displacement. when placed into context of the sizeable manufacturing sector, the employment required for the development phase is less than 1% of total employment in the sector. It is therefore assumed that no displacement occurs within the development phase. Similarly, the analysis of recent trends across the UK economy indicates that the operational phase is not likely to result in significant displacement effects. Displacement is unlikely to occur when considering the scale of the proposed textile recycling facilities relative to UK economy. Furthermore, the current sites are vacant, and the applicant have stated that no economic activity would be affected by the proposed recycling facilities. It is therefore assumed that no displacement occurs within the operational phase.

CAVEATS

Specific information relating to the proposed recycling facilities was provided where possible by the applicant. The estimated benefits are based on a mix of this information, published data, and reasonable assumptions.

The cost of development and fitting out the facilities could inflate or deflate depending on movements in variables such as exchange rates, demand for machinery, and metal prices. As such the information is the best current estimate at the time of writing.

There is no analysis within the report focusing on how the proposed recycling facilities would affect income distribution and deprivation levels in the area. This is outside of the scope of this piece of work.

The quantifiable impacts calculated by Oxford Economics and outlined in this report come from an Economic Impact Model which uses an input-output framework, standard economic underpinnings, published data and few clearly documented reasonable working assumptions. The modelling presented here does not factor in industry support mechanisms.

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