

Sector Analysis and Evidence Base

Subject Fashion design and manufacturing sector
Project Thames Estuary Production Corridor
Research period July-December 2021
Published September 2024

Contents

- 0.0 Introduction2
 - 0.1 About.....2
 - 0.2 Methodology and definitions.....3
- 1.0 The fashion production sector in the Thames Estuary Production Corridor5
 - 1.1 The big picture.....5
 - 1.2 Sector make-up and trajectory 10
 - 1.3 Key sector strengths and opportunities21
 - 1.4 Key barriers to growth and sector needs23
 - 1.5 Building capacity and reaching potential25
- 2.0 Planning for fashion production infrastructure27
 - 2.1 Fashion industry workspaces27
 - 2.2 Design typologies.....31
 - 2.2 Specialist facilities and key requirements37
 - 2.3 Learning from elsewhere39

Researched by:



Working with:
PRD
Tom Fleming Creative Consultancy
Zanna Creative

Jan Miller
Hawkins\Brown
Ramidus

0.0 Introduction

0.1 About

This document provides a summary of the fashion design and manufacturing sector from research undertaken between July-December 2021, commissioned by MHCLG to develop an evidence base and case for investment in cultural infrastructure development in the Thames Estuary. Its primary purpose is to summarise and contextualise the key findings and emerging messages from the research which will underpin the development of a Road Map for Growth for the screen industries sector in the Thames Estuary Production Corridor creating tools for local leaders to deliver cultural infrastructure that enriches communities and places.

Earlier research undertaken in 2017 revealed a growing screen industries sector across the Thames Estuary Production Corridor (TEPC). Since then, there has been an ambition from the TEPC partners to better understand the relevance of the sector for the region and to establish the steps to be taken to grow the screen industries sustainably and to allow the Estuary to become world leading in these areas.

This document presents an overview of key findings based on the quantitative and qualitative research to map, profile and understand the baseline and trajectory of the screen industries sector in the Thames Estuary. It also summarises qualitative evidence and key points provided by stakeholders through consultation.

The development of an evidence base and Road Map for Growth for supporting the high growth fashion design and manufacturing sector is part of wider set of activities that are being undertaken by the consultant team as part of this commission. This includes:

- The identification of potential development sites for new large-scale production facilities
- The development of another evidence base and Road Map for Growth for support high growth of another creative sector: the screen industries sector
- The development of actionable feasibility studies for identified projects in the Thames Estuary area

About the Thames Estuary Production Corridor

The Thames Estuary Production Corridor is a significant programme uniting east London, the North Kent Coast and South Essex to build on the strength of the creative economy in the region. The goal is to create a world-class centre for creative and cultural production.

The Thames Estuary is backed by Government as the UK's biggest growth opportunity. The region has the potential to create 1.3 million jobs and add £190 billion to the nation's economy by 2050. The Thames Estuary is home to film studios and fabricators, dance schools and digital production houses, music and media facilities – all the building blocks of the UK's creative and cultural economy. The Thames Estuary Production Corridor harnesses this strong base.

0.2 Methodology and definitions

Methodology and evidence gathering process

The summary of the research presented in this report draws on a broad range of intelligence on the TEPC area and the fashion design and manufacturing sector. The quantitative analysis has built on the evidence gathered in 2017 as part of the development of the TEPC Case for Investment and has drawn on several socio-economic datasets and sources for additional analysis, including ONS Annual Population Survey and Census data, Business Register and Employment Survey (BRES), Annual Business Survey and UK Business Count.

It also utilised qualitative information gathered through literature and policy review, qualitative mapping of key sector assets, case studies and best practice research as well as engagement and consultation with a range of stakeholders (fashion industry strategic bodies and agencies, regional stakeholders including TEPC partners and key sector gatekeepers, education institutions, facility operators and providers, and local businesses).

This mixed methodological approach has allowed data and information to be triangulated and assumptions to be tested and verified. It is expected that additional consultations will be carried out to test the emerging priorities and areas of actions and to finalise the Road Map for Growth.

Definitions

Our definition of the fashion sector is based on the methodology developed by Oxford Economics for the British Fashion Council's Value of Fashion report.

Focusing on fashion production, we have defined and differentiated:

- The 'core' fashion production sector, which includes fashion design and manufacturing activities.
- The 'wider' textile sector, which investigates the range of activity that forms the wider creative value chain. This includes textile and fashion wholesale and distribution.
- The creative supply chain, which includes supply chain activities and spills outside of the fashion and textile sector. This mainly includes creative services for the fashion industry (e.g. photography, media representation, advertising and marketing etc.)

It is acknowledged that defining the fashion sector using traditional SIC codes can mean that the sample does not fully capture the whole sector. This is because traditional SIC codes can include some firms in established creative industries SIC codes that are not genuinely engaged in creative activities and, conversely, other firms that are engaged in creative activities may not be classified as being in one of the established creative industries SIC codes. Measuring the fashion sector through standard classification is challenging as SIC codes are struggling to capture full spectrum of an increasingly complex sector that includes businesses that could defined themselves as 'retail' or 'digital' businesses.

Disclaimer: Most of the datasets in the report are dated 2019 and 2020. They paint a picture of the screen industries sector slightly before or in the middle of the disruption caused by Covid-19, which has had a profound impact on many creative businesses and freelancers. While the figures need to be taken with caution, they should provide a good enough baseline to understand the high level growth trajectory of the sector.

The list of SIC codes used for the analysis can be found in the table below:

SIC code	Fashion sector	Sub-sector
14110 Manufacture of leather clothes	Core fashion design and manufacturing	Fashion manufacturing
14120 Manufacture of workwear	Core fashion design and manufacturing	Fashion manufacturing
14131 Manufacture of mens outerwear	Core fashion design and manufacturing	Fashion manufacturing
14132 Manufacture of womens outerwear	Core fashion design and manufacturing	Fashion manufacturing
14141 Manufacture of mens underwear	Core fashion design and manufacturing	Fashion manufacturing
14142 Manufacture of womens underwear	Core fashion design and manufacturing	Fashion manufacturing
14190 Manufacture of other wearing apparel and accessories	Core fashion design and manufacturing	Fashion manufacturing
14200 Manufacture of articles of fur	Core fashion design and manufacturing	Fashion manufacturing
14310 Manufacture of knitted and crocheted hosiery	Core fashion design and manufacturing	Fashion manufacturing
14390 Manufacture of other knitted and crocheted apparel	Core fashion design and manufacturing	Fashion manufacturing
15120 Manufacture of luggage, handbags and the like, saddlery and harness	Core fashion design and manufacturing	Fashion manufacturing
15200 Manufacture of footwear	Core fashion design and manufacturing	Fashion manufacturing
32120 Manufacture of jewellery and related articles	Core fashion design and manufacturing	Fashion manufacturing
74100 Specialised design activities	Core fashion design and manufacturing	Fashion design
13300 Finishing of textiles	Core fashion design and manufacturing	Textile - manufacturing
13960 Manufacture of other technical and industrial textiles	Core fashion design and manufacturing	Textile - manufacturing
46410 Wholesale of textile	Wider fashion sector	Textile - wholesale
46420 Wholesale of clothing and footwear	Wider fashion sector	Fashion - wholesale
46480 Wholesale of watches and jewellery	Wider fashion sector	Fashion - wholesale
13100 Preparation and spinning of textile fibres	Wider fashion sector	Textile - manufacturing
13200 Weaving of textiles	Wider fashion sector	Textile - manufacturing
46640 Wholesale of machinery for the textile industry and sewing and knitting machines	Wider fashion sector	Textile - wholesale
70210 Public relations and communication activities	Supply chain	Creative services
74201 Photographic activities	Supply chain	Creative services
73110 Advertising agencies	Supply chain	Creative services
73120 Media representation	Supply chain	Creative services
90030 Artistic Creation	Supply chain	Creative services

1.0 The fashion production sector in the Thames Estuary Production Corridor

1.1 The big picture

The UK fashion industry is one of the leading industries within the UK economy.

Pre-pandemic, fashion production in the UK was in a state of a flux and the industry was more active than it has been for decade. However, disruptions and impacts caused by Brexit and Covid-19 combined with the industry's well-known long-term challenges - ethics and sustainability, skills shortage, retailer decline, among others - threaten to derail the resurgence of the fashion production sector in the UK before it has had a chance to realise its potential.

But the challenges are not new, and the industry needs to adapt and change to grow sustainably. Increasing automation and use of technology, changes in models of consumption, increasing ethical and circular practices, all are re-writing the rules of the industry and providing clear opportunities for transitioning towards a sustainable sector, which provides good quality jobs, supports innovation and minimises its environmental impacts.

1.1.1 Overview

The UK fashion market - including retailers, manufacturers, designers and wholesalers - represents one of the largest globally, with revenues of £118 billion, 890,000 workers and a contribution of £35 billion to the UK's pre-pandemic GDP¹. Serving a global fashion market, which generated £1.8 trillion in 2019, the UK's fashion ecosystem is a complex network with an extensive set of stakeholders. The UK fashion industry is also critically reliant on, and closely interlinked with, the global fashion and apparel market. Approximately 90% of the fashion and textiles purchased on UK high streets are imported, and 60% of all used textiles collected domestically are exported².

Fashion design and manufacturing are long established sectors in the UK. Significant capability exists in traditional areas such as yard spinning, knitting, weaving and making up, alongside growth in technical textiles, materials and composites³.

The fashion industry value chain encompasses a wide variety of sectors

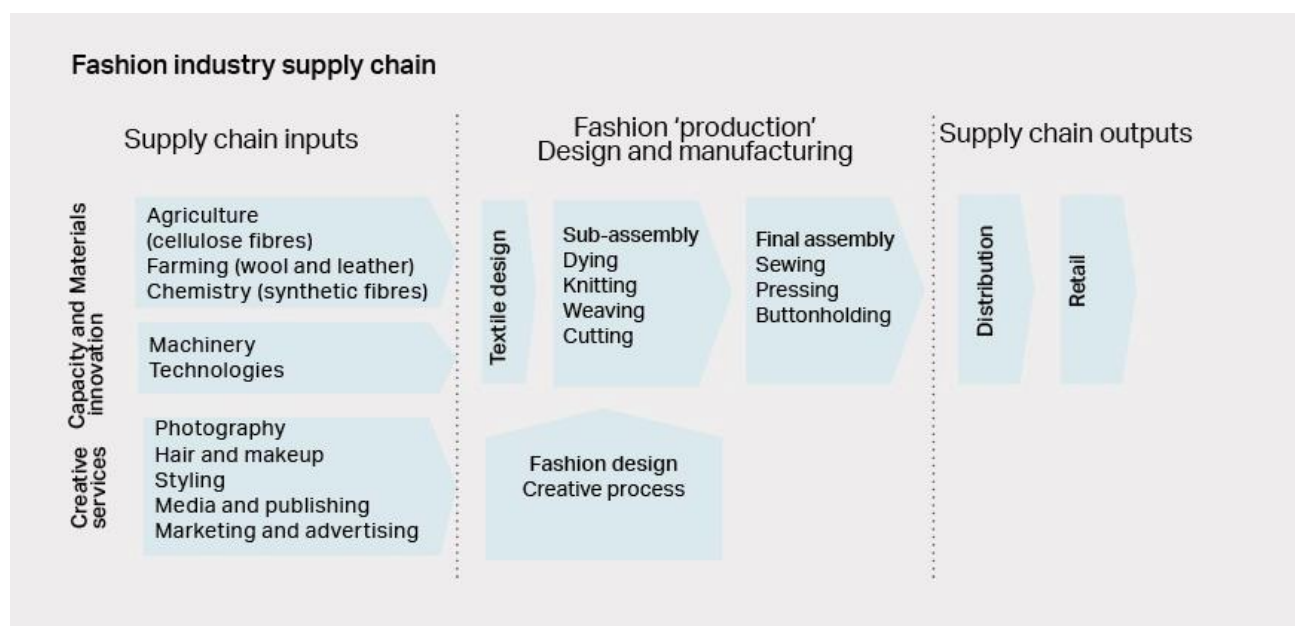
The sector relies on workers in a wide range of occupations, including fashion designers, market research analysts, graphic design artists, computer systems developers, pattern-makers, sewing machine operators, retail sales workers, wholesale buyers, accountants and business operations specialists. But it is also recognised that the mainstream perception of fashion as a standalone industry fails to acknowledge the broad nature of its value chain, which encompasses various sectors behind the garments and apparel

¹ The British fashion industry calls on government for support, Oxford Economics. In: British Fashion Council, 2020.

² The Circular Fashion Ecosystem, A blueprint for the future, British Fashion Council & UKRI 2020

³ The UK fashion and textile manufacturing, The Alliance Project and N Brown, 2017

ultimately purchased by consumers⁴. These include design; manufacturing and making; materials production (raw and processed); supporting industries such as agriculture (e.g. hemp, bamboo, dairy and wool) and chemical processing (e.g. protein-based fibres); footwear and artefacts; non-garment textiles; media and publishing (e.g. events, films, blogs, and journalism); advertising and digital content. These sectors operate across retail, museum, performance, physical, virtual and mixed-reality spaces, and feed into other sectors through technical textiles (e.g. performance sportswear, workwear, interiors, automotive and medical applications), even before accounting for the contribution of feeder sectors such as technology firms.



Geography of the UK fashion design and manufacturing sector

Whilst the sector has seen a decline in both employment and production nationally over the last 15 years, data estimates that there are over 100,000 working in the UK design and fashion manufacturing only, excluding the self-employed and employees working in the wider fashion supply chain. The industry is dominated by SMEs and micro-businesses with over four-fifths of companies employing fewer than 10 people⁵. Only 4% of UK fashion and textile design and manufacturing companies have more than 50 employees⁶.

London, as a world fashion capital, concentrates almost 15% of fashion and manufacturing jobs in the UK, with specialism specialist in fashion design, tailoring and garment manufacturing. With the establishment of the Fashion District, a new hub for London's fashion industry, London is paving the way for further growth and innovation in the next decade. The ambition for the East London fashion cluster is for it to become a significant incubator for digital and traditional design creativity building on its strengths in tech and a thriving liveries and craft guild culture.

Outside of London, where the fashion industry heavily specialises in high-end fashion production, major clusters of textile manufacturing production are located within the industrial heartlands of Greater Manchester, Lancashire, West Yorkshire, Leicester,

⁴ Business of Fashion, Textiles and Technology, Mapping the UK Fashion, Textiles and Technology Ecosystem, UAL 2021

⁵ The UK fashion and textile manufacturing, The Alliance Project and N Brown, 2017

⁶ ONS Inter-Departmental Business Register (2016): Local Enterprise Unit Count

Derbyshire and Nottinghamshire. These areas account for two-fifths of all textiles employment nationally. The main clusters are:

Greater Manchester: One of the largest of garment and knitted clothing sectors in the UK outside London (which has the largest concentration of clothing and luxury garment making), followed by Leicestershire, and the West Midlands. Greater Manchester also has one of the largest concentrations of homeware textiles, and technical textiles sub-sectors in the UK.

West Yorkshire has one of the largest spinning and weaving sectors, excluding those also employed in new technical textiles industries and textiles finishing.

1.1.2 Key drivers of change

After decades of decline, the last twenty years has seen significant increases in the market for clothing and textiles, both in the UK and globally. Recent UK-wide and regional studies all highlight clear growth opportunities for the sector. Crucially, for different reasons, the rationale for sourcing from low-cost countries has weakened, and both re-shoring and demand for British textile and fashion products continues to grow. The sector is however facing significant challenges regarding changing patterns of consumer behaviours, technological and digital changes, and sustainability.

Digital disruption and changing consumer behaviour

The consumer landscape for fashion has seen significant shifts in recent years. With the rise of digital technologies, consumers now engage with a mixture of physical and online retail environments. These vary from dedicated resources – high street and independent retailers and online platforms such as Asos, Boohoo and Farfetch - to other social media platforms that now represent an important part of the ‘real estate’ for fashion retail (e.g. Instagram, Pinterest, etc.).

As much as any physical product, fashion is now part of the ‘experience economy’. Consumers – particularly younger ones – expect online and high street retail environments to reflect one another, and to see new product each time they visit either the website or a physical store. The increased frequency of visits is reflected in a much faster cycle of new product development and launches. Overall, the traditional two-season cycle has ceased to be the business model for growth in the sector. This means that the supply chain needs to respond more quickly and accurately to signals of consumer demand and the need for shorter lead times is challenging a sector which traditionally has a long and complex supply chain.

Designers and producers also need access to up to date information and sophisticated analysis of trends and demand to respond quickly enough to take advantage of these market signals and to move themselves up the value chain to become more profitable. This presents a huge challenge to the existing fashion supply chain, whose digital skills and use of technology are often inadequate.

Technological changes and innovation

For several years, the fashion and wider textile industry has been going through an intensive digital transformation process driven by increased consumer demand for

personalised products, increased use of big data and more automation of production and logistics processes.

The increasing influence of technology is reflected in the emergence of a new generation of fashion start-ups using 3D printing, big data and wearable technology. The use of advanced materials and nanotechnology in textile and fashion has been steadily growing to enhance materials' attributes and give new functions to textiles and clothes. Wearable e-textile technologies are also facing exponential growth and the development of such technology requires a multidisciplinary research field made of computer engineering, mechanics, electronics, materials and textiles. 3D printing technology provides an opportunity to experiment with innovative materials and structures that could not be done before and this technology can also become a critical factor in the sustainable development of fashion manufacturing, with 3D printers being able to use recyclable materials more effectively in the production stage. Finally, the contribution of Artificial Intelligence (AI), Virtual Reality and Augmented Reality (VR/AR) is increasingly relevant and will become more important in the future, especially in retail and customer engagement.

Research suggests that greater use of technology and automation in fashion design and manufacturing could make the economic case in some 'lower value' manufacturing viable in the UK⁷. This would however require significant capital investment requiring finance and confidence for businesses to invest in the future. This would also mean investing in fused skills and ensuring an appropriate supply of qualified workforce.

Sustainable and ethical fashion

Since the 20th century, clothing has increasingly been considered as disposable, and the industry has become highly globalised, with garments often designed in one country, manufactured in another, and sold worldwide at an ever-increasing pace. Fashion retailers' requirements for both speed and low cost production have resulted in low wages, illegal migrant workers and more recently a greater risk of exposure to COVID-19. Over a year has passed since the increased media attention surrounding factories supplying the online fashion retailer Boohoo, due to allegations of underpayment of wages and unsafe working conditions. This, however, is not a new problem. Labour exploitation in the industry has long been an open secret and the pandemic has shone a new light on this important issue and also exacerbated the vulnerability of workers in this industry.

Overall, concerns around the sustainability and work conditions associated with 'fast fashion' have led to the emergence of a new type of consumer, increasingly conscious and inquisitive of where and how their clothes are made.

There has been an uplift in demand for UK products that have a strong British association, where branding, authenticity and tradition of well-made products are seen as a mark of exclusivity overseas. There are several examples of luxury brands expanding capacity and expanding manufacturing centres in the UK, and there are recent examples of high street retailers promoting 'Made in Britain' labels, including a number who are already actively growing the proportions they source from the UK. This includes John Lewis and M&S.

During the pandemic there have also been signs of new growth opportunities for micro-businesses and SMEs. In opposition to fast-fashion business models and unethical labour

⁷ The UK fashion and textile manufacturing, The Alliance Project and N Brown, 2017

and supply chain practices, there is an increased appetite for sustainable, local, independent fashion retailers.

Growth of the sharing economy

The shift away from ownership in fashion is also among the most significant current trends, and some research⁸ suggests that the resale market could be bigger than fast fashion within ten years. As the demand for pre-owned clothing is increasing, the growth of the so-called 'sharing economy' that has disrupted previous paradigms in the car hire or hotel business sectors has also begun to emerge in the fashion sector. Both mature and start-up businesses are introducing re-selling and rental subscription models. Whilst this new fashion economy does not compete with the mainstream fashion industry, it has the potential to drive a transition to a sustainable fashion ecosystem.

Brexit and Covid-19 disruptions

Brexit and Covid-19 have both impacted the fashion industry sector, exposing significant weaknesses in the supply chain. Whilst the immediate impact of Brexit has been to negatively impact the supply of goods and talent, while Covid-19 crippled demand, the full extent of the two disruptive events is still unravelling.

The sector strongly relies on export revenues, raw materials from abroad, and has a highly complex supply chain, and an international talent pool; therefore the new post-Brexit trade regime brings several challenges to the fashion industry:

- **Movement of goods and services:** Until the withdrawal from the EU, UK textile businesses, brands and designers have enjoyed unrestricted access to European markets. In the face of Brexit, the fashion and textiles industry are facing costly regulations which are increasing costs for both businesses and consumers. Goods entering the EU must now also satisfy rules of origin requirements, proving to be a significant challenge for UK businesses.
- **Access to skilled workers:** The restriction of free movement is a clear issue for the sector which has historically relied on EU skilled workers. Manufacturing for both the high-end and the high street, it has been estimated that 87.5% of the workforce is from the EU according to a BFC survey and of the 13,500 working in London garment factories, approximately 70% of those are EEA workers. Today, many EU workers in the sector, such as garment workers, would be denied a UK visa under the UK's new points-based immigration system, which is aimed at retaining only "high-skilled" jobs.

Disruptions caused by Covid-19 were also important. The pandemic affected all the supply chain as manufacturing plants, factories and retail stores closed down to slow the spread of the virus. Businesses, from fashion designers to large brands and retailers, were also economically affected.

Crucially, the pandemic has helped in understanding the huge challenges already faced by the industry and put them at the forefront of the world stage. It has helped revealing issues around working conditions in relation to fast-fashion as well as the existence of a particularly fragile production supply chain. In 2020, the State of Fashion Report claimed that the industry is undergoing a 'year of awakening' as consumers demanded greater social responsibility from fashion retailers big and small.

⁸ Business of Fashion & McKinsey, 2019

Key considerations for the Thames Estuary Production Corridor's fashion design and manufacturing growth agenda

- The trends above all highlight the global and interconnected workings of the fashion industry. This emphasises the need for all elements of the fashion sector in the TEPC to come together in a concerted way to address challenges and market opportunities. Many of these require a hybrid response – simply addressing technology, design, brand, or manufacturing in isolation will not provide a solution.
- The development of the TEPC's fashion sector is likely to be interdependent with continuing innovation in and application of software, digital technology and advanced materials technology at all levels, from education to design to production to innovation. Continuing adoption of digital technology and development of a range of software skills across the supply chain is likely to be essential to growth and sustainability of the fashion industry.
- Accelerating market and technological change has now closed the gap between the atelier, the head office and the factory floor; and demand for labour has increased.
- Clustering holds great opportunities for sustainable fashion and more circular supply chain practices.
- There is also growing market for transparency and 'storytelling' in fashion production which could be link well with the TEPC corridor and place narrative.
- To address challenges and development production capacity: development of new skills and capabilities, adoption of innovative machineries and equipment, upgrading of product quality and standards will be crucial.

1.2 Sector make-up and trajectory

1.2.1 Key figures and characteristics of the sector

There are around 1,920 fashion design and manufacturing businesses and 4,195 jobs in the TEPC. These figures, however, do not take into account freelancers and self-employed fashion design and manufacturing workers, which are estimated to represent between 20% and 40% of the workforce.

Overall, the number of businesses has been growing over the past 5 years (+16%), at a similar rate as the TEPC creative economy (+15%). However, it has been growing more than twice as fast as the fashion design and manufacturing sector in the rest of the country (+6%).

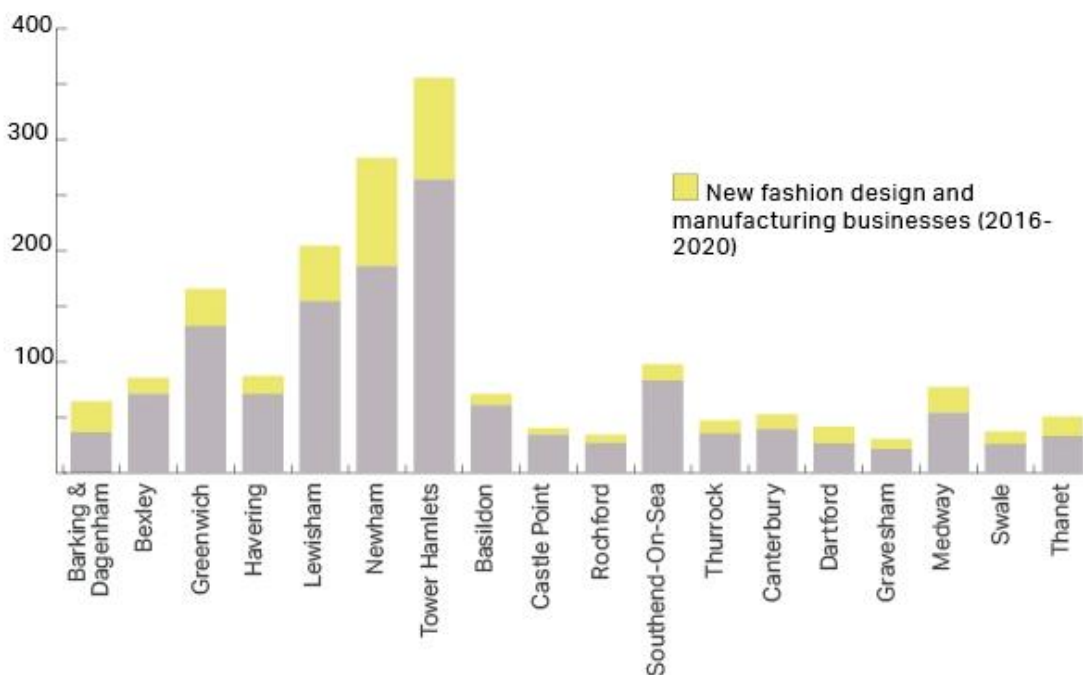
The data shows that fashion design and manufacturing is a specialism in East London, which influences the specialisation figures for the wider area. However, the sector has been growing at a fast rate in North Kent too. In some areas, such as Thanet and Medway and Thurrock, the number of businesses has been multiplied by 1.5 between 2016 and 2020. This is from a small business base but demonstrates positive sector dynamics overall.

	Creative businesses		Core fashion design and manufacturing			Wider fashion/textile businesses		
	2021	% change 2016-21	2021	% change 2016-21	LQ	2020	% change 2016-20	LQ
Core TEPC	18,700	+15%	1,920	+16%	1.1	135	-15%	0.9
TEPC London	13,300	+16%	1,345	+20%	1.4	105	-15%	1.3
TEPC N Kent	2,800	+20%	340	+15%	0.8	10	0%	0.3
TEPC S Essex	2,500	+8%	235	+5%	0.7	20	-20%	0.6
England	275,300	+8%	29,865	+6%	n/a	2,670	-1%	n/a

Fashion design and manufacturing businesses: number and recent changes

Source: Business Count 2021.

Note: An LQ above 1.0 shows a higher level of specialisation than in England



Number of fashion design and manufacturing businesses per local authority and recent growth

Source: Business Count 2020.

A sector made of small and micro-businesses, and self-employed workers

Fashion design and manufacturing jobs represent around 8% of creative employment in the TEPC. The number of fashion design and manufacturing jobs has slightly grown in the past two years, however jobs growth has been limited in East London. This could be explained by the nature of the fashion design and manufacturing businesses in the TEPC which are typically small or made of a single person.

Whilst growth has been relative in East London, strong employment growth has been recorded in both Kent and Essex. Jobs are however still concentrated within East London boroughs, and in particular Tower Hamlets, Lewisham, Greenwich and Newham.

There are very few large fashion design and manufacturing companies in the TEPC and more than 90% of the businesses employed less than 4 people. The data also suggests that there is a young and nascent group of fashion design and manufacturing businesses in the TEPC. Almost 1/3 of businesses were established after 2016.

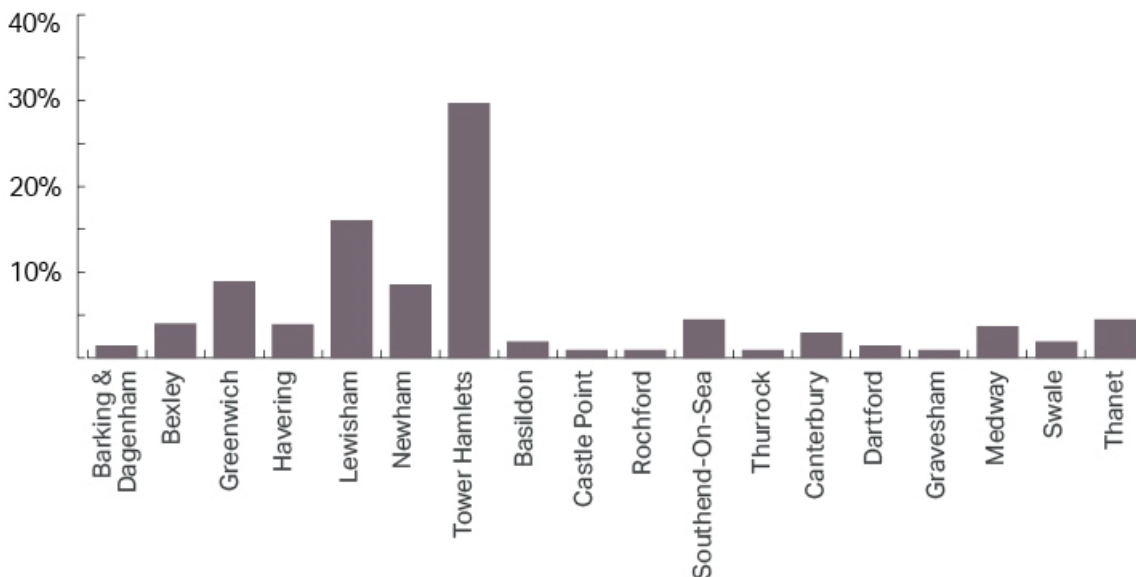
An important contribution to the local economy

The core fashion design and manufacturing sector in the TEPC is estimated to directly generate a GVA of £152.2 million (GVA area denoted by marked areas on maps on p.14 & p.15). This does not take into consideration the wider supply chain including retail and distribution.

	Creative employment		Core fashion design and manufacturing			Wider fashion/textile businesses		
	2019	% change 2015-19	2019	% change 2015-19	LQ	2019	% change 2016-19	LQ
Core TEPC	60,300	+26%	4,315	+12%	0.9	920	+30%	0.9
TEPC London	43,000	+33%	2,455	+6%	0.9	580	+50%	1.0
TEPC N Kent	8,200	+4%	935	+42%	0.7	225	+20%	0.8
TEPC S Essex	9,000	+19%	925	+49%	0.9	115	+21%	0.6
England	1,294,700	+17%	101,625	+17%	n/a	634,550	+6%	n/a

Fashion design and manufacturing: key figures

Source: Employment estimates, BRES 2019 Note: An LQ above 1.0 shows a higher level of specialisation than in England



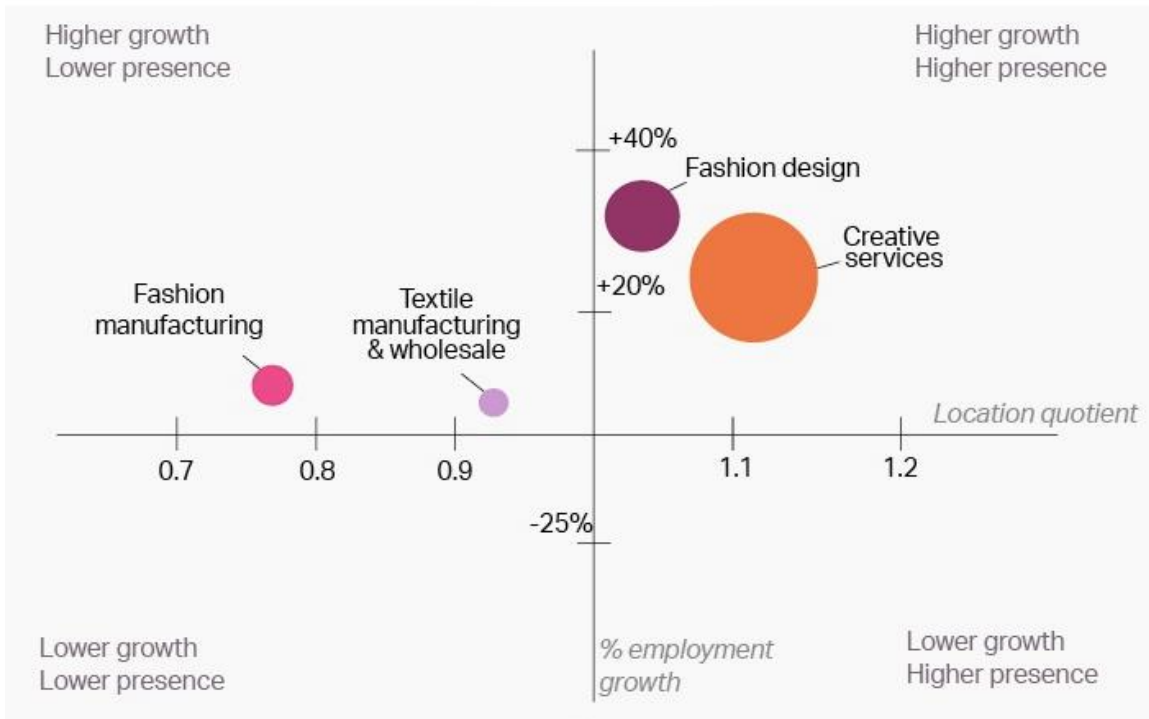
Distribution of fashion design and manufacturing jobs across the Thames Estuary Production Corridor

Source: Employment estimates, BRES 2019

Disparities within the sector

A detailed sub-sector breakdown for fashion design and manufacturing employment is displayed on the below graph. This highlights absolute employment levels (size of bubble), employment growth (vertical scale) and level of specialisation (horizontal scale).

There are clear disparities within the sector with regards to growth and levels of specialisation. Whilst businesses and sectors usually work across multiple activities (e.g. a fashion designer is likely to also be involved in some elements of garment manufacturing), the data shows that some activities are more important than others across the TEPC.



Sector size, specialisation and growth by employment in the TEPC (2016-2021)

Source: BRES, ONS, 2021

Note: An LQ above 1.0 shows a higher level of specialisation than in England

Fashion design

Fashion design and specialised design activities is a key growing specialism across the region. This is not a surprising as London remains the powerhouse of UK design and has a glowing international reputation for creating talents with distinctive design identities. London also concentrates most of the UK's high-end fashion design and production activities. Data suggests, however, a growing fashion design employment base in some areas in Kent and Essex, including Margate, Medway, and Southend-On-Sea.

Fashion manufacturing

Fashion manufacturing is a relatively small sector in the Thames Estuary Production Corridor. Statistics suggest that there has been a contraction in fashion manufacturing employment over the last five years and that overall, employment in the sector appears to be less than the UK average. Existing fashion manufacturing businesses are typically micro-businesses and SMEs. These include pattern makers, garment manufacturers, textile finishing businesses etc. The mapping reveals that manufacturing and design activities are concentrated in similar areas.

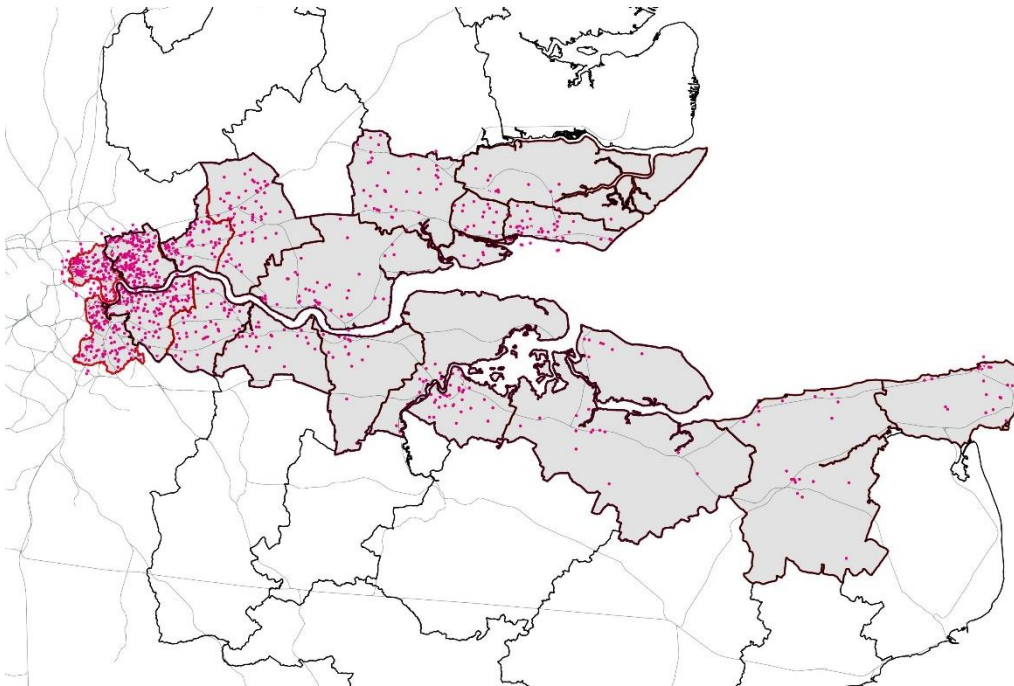
Given the intrinsic relationship of fashion design and manufacturing, and in light of the the growth of the fashion design sector, there is an opportunity to develop supply chain relationships across the TEPC, supporting micro-enterprises and SMEs to develop and grow and a more sustainable value chain.

Creative services

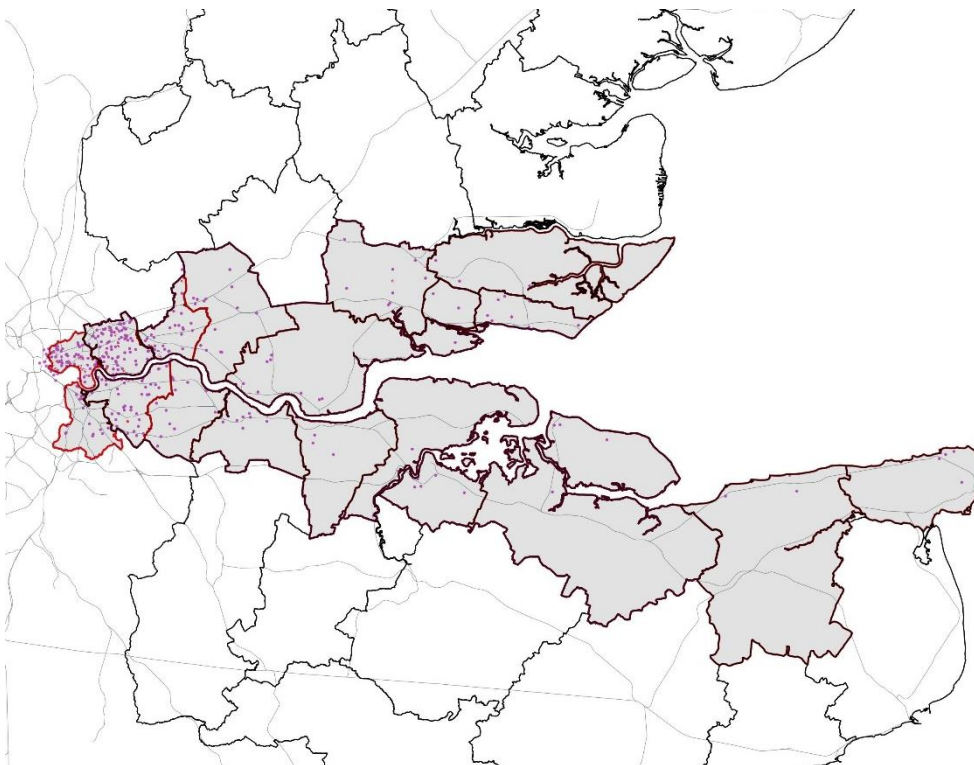
Creative activities associated with the fashion industry include the work of fashion photographers, creative directors, stylists, marketing and advertising companies, model representatives etc. Unfortunately, the value of these activities is difficult to quantify

because the data is insufficiently disaggregated to accurately identify the volume of work undertaken by these professions in the fashion sector.

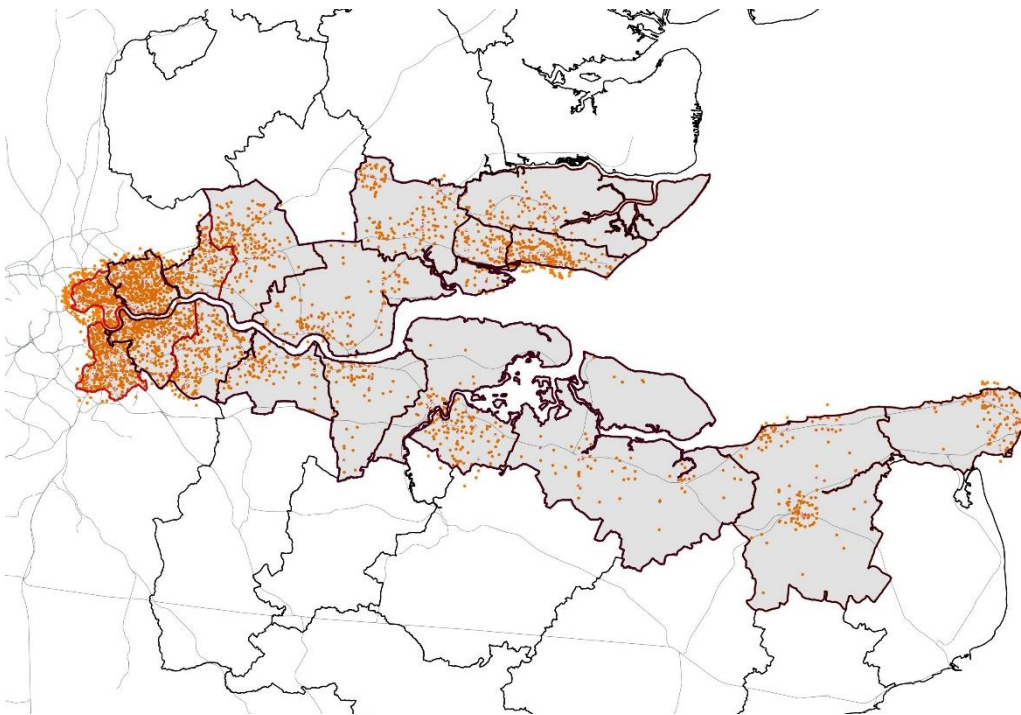
The data suggest that there are several creative services to the fashion industry in the Thames Estuary. This encompasses a number of supporting activities, and these can be found across the region, with specific concentrations in East London, Southend-On-Sea, Canterbury, Medway and Basildon.



Distribution of fashion design and manufacturing businesses – Source: Companies House, 2021



Distribution of fashion/textile wholesale and distribution businesses – Source: Companies House, 2021



Distribution of creative services businesses – Source: Companies House, 2021

Potential for cross-sector growth and innovation

The Thames Estuary Production Corridor has a high concentration of high value screen and media businesses (with growing capacity for innovation and GVA growth), across a range of activities that are adjacent to and could have a direct bearing on future development of fashion, including: software development and digital, photography and music.

The Thames Estuary Production Corridor has creative capacity

Previous studies looking at the Thames Estuary Production Corridor highlighted higher creative and cultural occupation figures when compared to employment. This demonstrated an existing creative capacity (= residents in creative occupations) across the Thames Estuary Production Corridor's places.

In 2017, there were over 100,000 people living in the Estuary who worked in creative occupations but only around 55,000 creative and cultural jobs in the area. That surplus accounts for people working outside the region or who have creative roles within non-creative businesses.

There are an estimated 1,604 fashion design and manufacturing freelancers in the Thames Estuary Production Corridor

Freelancing is an important part of the design sector. The increasing number of businesses in fashion design is distinguished by the number of small businesses and freelancers. A recent report from the Creative Industries Federation estimates that levels of self-employment in fashion design and creative services for the fashion industries (e.g. freelance stylist, make-up artists, 'fashion influencers') are very high, representing 51% of the workforce. The proportion of the freelance workforce in fashion manufacturing is slightly lower and estimated to be between 20 and 25%.

	Self employment in the creative and cultural sector		Self employment in the fashion design and manufacturing sector
	2021	% change 2016-20	2020
Core TEPC	20,300	+17%	1,620
TEPC London	13,000	+17%	1,445
TEPC N Kent	3,850	+23%	110
TEPC S Essex	3,450	+13%	65
England	273,000	+11%	147,675

Self employment estimation

Source: Annual Population Survey 2020

Note: Figures are estimated and have been rounded.

High levels of self-employment and freelancing can be explained by the nature and make-up of the fashion design and manufacturing business base. With the average fashion design and manufacturing company employing 3 to 4 people, they can't usually afford to have the range of skills needed on a full-time basis and don't always have capacity or specialist skills in house.

It is estimated that there are around 20,000 residents in the Thames Estuary Production Corridor with a creative or cultural occupation and who are self-employed in 2021. This is 1% more than in 2016.

To get an estimate of the fashion design and manufacturing workforce present across the Thames Estuary, an Average Grossing Factor has been applied to occupational data in the screen industries. We have used existing research to establish the average proportion of freelancers for each sub-sector.

Key considerations for the Thames Estuary Production Corridor's fashion design and manufacturing growth agenda

- East London is home to most of the capital's fashion enterprises and employment and is driving the growth of London's fashion design and manufacturing, The sector is not a specialism in North Kent and Essex but the figures indicate a trend of increasing design capability and clustering in the Thames Estuary– and, as design is understood to be a driver of many other sectors, is a good indication of the potential absorptive capacity for innovation.
- Fashion in the TEPC has demonstrated resilience in its growth during a period of turbulence in its external market environment – in particular, in the re-emergence of added-value production for high-end fashion production.

1.2.2 Thames Estuary Production Corridor fashion sector assets

Infrastructure and facilities

The fashion design and manufacturing sector mapping exercise has identified a range of independent services and facilities supporting the sector across the Estuary. East London

concentrates most of the workspace offer dedicated to the fashion industry, but it should be noted that this offer was only introduced in the last few years with the momentum generated by the launch of the vision for the East London Fashion Cluster and the creation of the Fashion District.

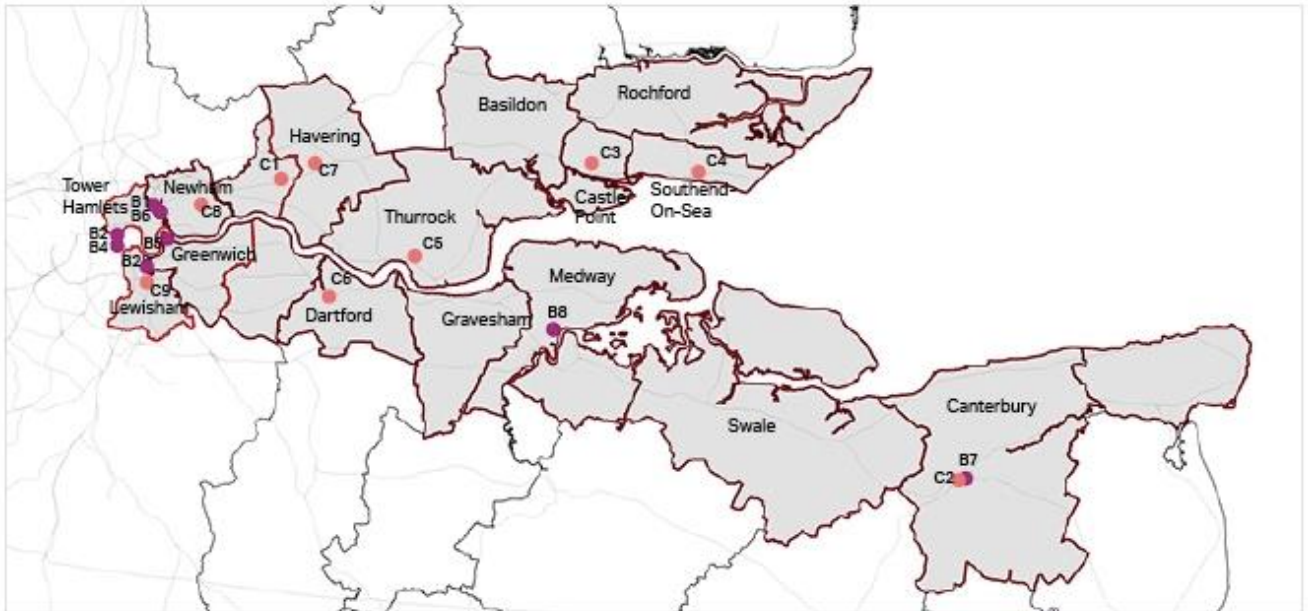
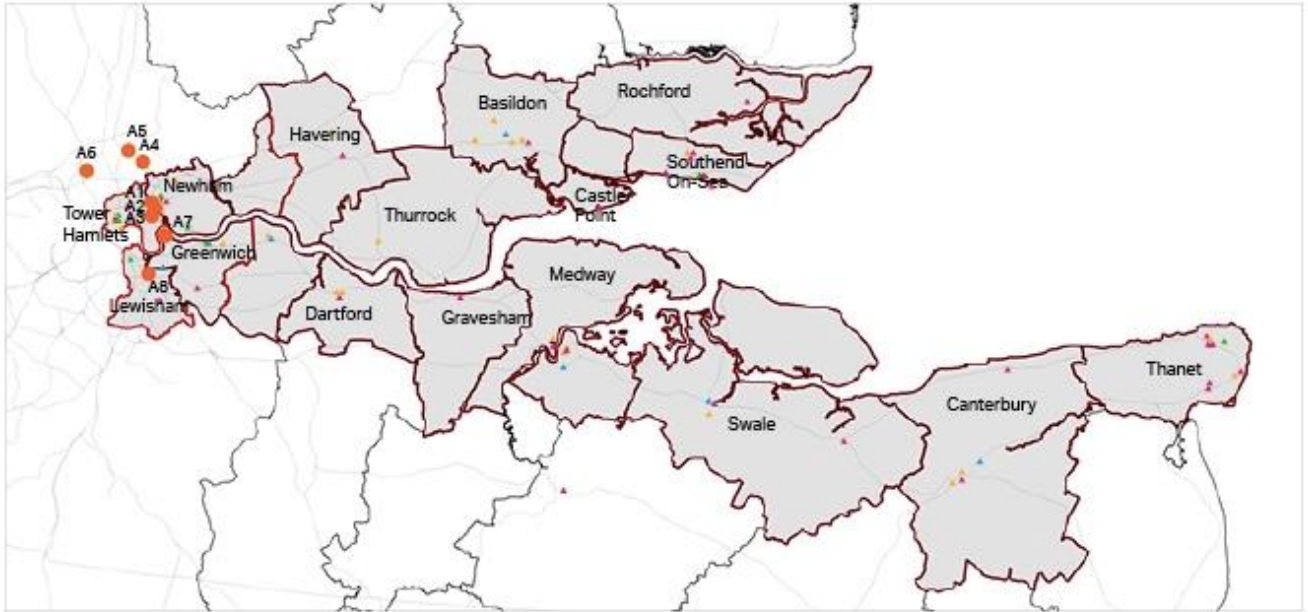
Outside of East London, there are very few workspaces and open facilities dedicated to the fashion design and manufacturing sector. Businesses and freelancers typically work from independently rented premises or from their residential address.

Unlike other UK textile and fashion clusters such as Leeds or Manchester which have a strong textile industry heritage and capacity and infrastructure for mass / large-scale production, the Thames Estuary Production Corridor is home to a network of micro-businesses and spaces focusing on high-end fashion and small batch production. This is reflected in the network of spaces and facilities used by the industry, typically small light industrial studio spaces within re-purposed industrial buildings, office buildings, or high street commercial units. They are typically found within urban areas near town centres.

The East London Fashion Cluster and Fashion District

In 2016, the proposed relocation of London College of Fashion in a new single campus in East Bank, Stratford, prompted the development of a feasibility study for an East London fashion cluster. East Bank will be a new powerhouse for innovation, creativity and learning, through a unique collaboration between world-leading universities, arts and culture bodies, including Sadlers Wells, V&A and BBC, as well as Loughborough University and UCL.

In 2018, the Fashion District, a new hub for London's fashion industry aimed to return world-leading fashion manufacturing and design to east London with sites in East Bank, Queen Elizabeth Olympic Park, Hackney Wick, Haringey and Poplar, was launched. The Fashion District seeks to boost growth by creating new jobs, improving skills and training, and providing affordable workspaces. It encompasses two of the London Mayor's Creative Enterprises Zones and is home to an increasing number of fashion providers. Supported by the Mayor's Good Growth Fund, investment in a number of new workspaces and bespoke facilities for designers, makers and manufacturers were made in the last few years. This includes Poplar Works and Fish Island Fashion Village Studios, as well as the Fashion Tailoring Academy, in Haringey, led by Fashion Enter.



KEY

● Fashion workspaces

- A1. The Trampery Fish Island Village
- A2. The Lab E20
- A3. Poplar Works
- A4. Leyton Green Studios (Arbeit)
- A5. Building Bloqs
- A6. Fashion Enter Designer Academy
- A7. Design District
- A8. Cockpit Arts Deptford

Fashion design and manufacturing studios/services

- ▲ Design
- ▲ Sampling and pattern making
- ▲ Garment/ manufacturing
- ▲ Other specialist services (e.g. embroidery, fabric printing)

● Higher Education

- B1. UAL: London College of Fashion
- B2. London Metropolitan - Aldgate
- B3. Goldsmith University
- B4. Coventry University
- B5. Ravensbourne University
- B6. Loughborough University
- B7. University of Kent, Canterbury
- B8. UCA Rochester

● Further Education

- C1. Barking and Dagenham College
- C2. Canterbury College
- C3. USP College - Seevic
- C4. South Essex College - Southend
- C5. South Essex College - Thurrock
- C6. North Kent College - Dartford
- C7. New City College - Havering Ardleigh
- C8. Newham College
- C9. Lewisham College

Education institutions

The TEPC benefits from a dense network of higher and further education institutions. There are 7 universities which offer fashion related courses. Some of them have attained world-class reputations for creative and design education. In particular:

- Loughborough University offer one of the most established textiles courses in the UK and is currently ranked 1st for Fashion and Textiles.
- The London College of Fashion, part of UAL, offers highly specialised and recognised courses ranging from fashion styling and merchandising to pattern cutting, fashion illustration, 3D effects, bespoke tailoring, among others. It has significant research facilities and prioritises innovation and industry partnerships through its fashion programmes. The London College of Fashion is at the heart of the Fashion District, the hub for fashion innovation in east London.
- London Metropolitan is amongst the top 5 best Universities for fashion and textiles.
- University for the Creative Arts Rochester's (UCA) award-winning Fashion school is one of the largest in Europe, encompassing all aspects of the industry from design, fashion marketing, management, business, retail, fashion promotion, image making and journalism. However, the Rochester campus closure in 2023 means courses will move to other campuses in Canterbury, Epsom and Farnham.

There is also a relatively good provision of Further Education Colleges across the Estuary, which provide courses that are more 'hands on' or 'technical'. For example, North Kent College in Dartford offers a fashion course consisting of live industry-led projects, research, practical skills in sewing and print workshops, pattern cutting, surface decoration and accessories. Newham College also offers courses in fashion and tailoring and is partnered with Fashion District, allowing the college to respond quickly to sector needs and skill gaps.

Institution	HE/FE	Course provided				
		Fashion & textile design	Fashion manufacturing / tailoring / clothes making	Jewellery design and manufacturing	Fashion business management & marketing	Textile / digital innovation / fashion tech
UAL: London College of Fashion	HE	X	X	X	X	X
London MET - Aldgate	HE	X	X	X	X	
Goldsmith University	HE				X	
Coventry University	HE				X	
Ravensbourne University	HE/FE	X	X		X	
Loughborough University	HE/FE	X				
University of Kent, Canterbury	HE	X	X			
Barking & Dagenham College	FE	X	X			
Canterbury College	FE	X				
USP College - Seevic	FE	X			X	
South Essex College - Southend	FE				X	
South Essex College - Thurrock	FE		X			
North Kent College - Dartford	FE		X			
New City College - Havering Ardleigh Green	FE		X			
Newham College - East Ham	FE		X			
Lewisham College	FE		X			

Existing support, partnerships and research

There are a number of partnerships which are active across the TEPC and have a focus on fashion enterprises. These draw together a variety of sector stakeholders, with a common aim of supporting sector growth, attracting investment and fostering research and innovation in the industry. In some cases, educational institutions are driving these partnerships forwards.

In relation to the Fashion District, current initiatives include:

- The London Fashion Fund: Supported by Mayor of London, the fund seeks to build a portfolio of diverse and high growth start-ups that will shape the future of the fashion industry. The fund is particularly interested in bioscience fashion materials, virtual fashion and original design supported by sustainable production.
- Manufacturing Futures, 2021, supported by the Fashion Innovation Agency and the Institution of Engineering and Technology: a fund targeted at tech start-ups that have the potential to revolutionise any part of the fashion supply chain.
- UAL's new Fashion, Textiles and Technology Institute (FTTI), evolving out of the BFTT Creative R&D Partnership and including East Bank partners, Loughborough University, UCL and QMUL: A network of specialist academic research, knowledge exchange and business support to deliver sustainable innovation across the entire fashion and textiles value chain. The FTTI operates at the intersection of design, STEM, cultural anthropology and business practices.

Key considerations for the Thames Estuary Production Corridor's fashion design and manufacturing growth agenda

- Major capital investment towards the provision of new fashion production and R&D infrastructures have been made in East London / Fashion District in recent years. These spaces can demonstrate that there is a strong demand and that they are viable, which help in making the case for supporting the fashion production sector in the wider Thames Estuary.
- Increased collaboration with fashion and tech businesses and BFTT work is expected to have a beneficial side effect of encouraging designers to adopt software and productivity tools that allow them to strengthen their garment tech skills. This in turn helps them to work more effectively with manufacturers, more of whom start to promote their services to new labels as a result. Overall, this is expected to lead to smaller and more localised supply chains: with the presence of the fashion district and due to its location, the Thames Estuary is ideally positioned to grow and develop a competitive fashion supply chain.
- The focus of the Fashion District on developing the adoption of emerging and enabling technologies within the creation, promotion and consumption of fashion aligns with the UK Innovation Strategy, which positions well the sector and the region to attracting important levels of public investment in innovation.
- Whilst there is clear evidence that physical clustering of businesses and talent in East London has a number of benefits, there is limited evidence of supply chain relationships in the rest of the Corridor. Considering existing assets and the distribution of key businesses, there is a need to strengthen supply chains within the TEPC by helping to develop more sophisticated and responsive business models and processes to take advantage of changing opportunities.

1.3 Key sector strengths and opportunities

With a long-term, holistic and collaborative approach to sector growth, the TEPC is well positioned to take advantage of emerging opportunities at regional and place-based level and build a resilient and innovative supply chain ecosystem.

This will require a blend of sustainable development models aiming at protecting and growing the existing key cluster (East London) and developing complementary and inter-connected latent micro-clusters.

Competitive advantage

The presence of the Fashion District as well as the government's Levelling Up agenda makes the TEPC ideally placed to take advantage of inward investment. Linked to this, ongoing investment in infrastructure will help to connect towns and cities within the Thames Estuary and nationwide, making it an even more attractive place to live and work.

The presence of East London with the TEPC is a key asset. For larger employers, inward investors, but also smaller fashion production businesses, access to a pool of skilled labour across a range of disciplines as well as a range of supply chain services is a significant advantage. Smaller companies can also access a range of skills and secure in the knowledge that they can quickly build teams through a mixture of employment, freelance workers and sub-contracting.

An opportunity to re-shore fashion production?

Overall, the rationale for re-shoring fashion production is growing. The pandemic has heightened the need and demand for sustainable fashion. The trend towards digitisation, shorter lead times and mass customisation means that production close to customers will be a key component in the future of fashion manufacturing – with benefits including speed-to-market, flexibility and a lower carbon footprint. However, it should be made clear that whilst it makes sense to re-shore specialist sampling and small runs of production, we are not seeing a return of mass manufacturing of high street fashion production in the TEPC, for which the UK will stay uncompetitive on cost for some time.

The opportunity for re-shoring in the Thames Estuary builds upon what can be seen on the ground: a growth of small batch production businesses and specialised design activities. It is believed that it is innovation in manufacturing processes, materials and sustainability that will drive further growth in the region. Overall, the more added value in the manufacturing process - from design to digital and panel printing, jersey and jacquard, embroidery and knitwear - and in the sustainable agenda of the sector - around circular practices and models - the more the market can be made in the Thames Estuary.

Providing space in latent micro-clusters to attract businesses and talent

Due to economic uncertainty and rising costs of living in large metropolitan cities such as London, the cost of workspace, even when subsidised, is still considered a financial barrier for micro enterprises. To date, this has led to some SMEs relocating to marginally cheaper regions of the UK where rent is affordable. Kent and Essex are ideally placed to take advantage of this dynamic, by providing the right type of facilities and workspaces to attract businesses and talent. The challenge remains for emergent clusters in the Estuary to promote their initiatives for further inward investment. This points towards a need for capital and financial investment into latent clusters.

Stakeholders have already understood this issue and initiatives such as the SECEN Workspace Masterplan delivered by the South East LEP, or the development of a Creative Land Trust in Margate are going in the right direction in exploring new models and partnerships to ensure the continued supply of affordable workspace provision in the future.

Innovation and convergence with other industries

As technology becomes an increasingly more transformative force across all parts of the economy, there is a considerable opportunity to digitise sectors through co-growth and collaboration opportunities. Within this context, the fashion industry has only begun to unleash the potential of the digitalisation based on computer sciences, communication and electronics. These technologies are recognised for using higher information intensity and connectedness of physical resources than the fashion industry has ever previously seen and will bring more and more flexibility and agility to fashion production. At the heart of these innovations, the Fashion District is a key asset for the TEPC. There is also an opportunity to bring together the fashion sector and digital sector growth agenda, as it is now clear that one sector can support the other.

Changing workplace and increased circular practices

There is a clear opportunity for the TEPC to grow its fashion sector through infrastructure provision. There are more and more examples of commercial development looking at encouraging more flexible use of spaces to support the growth of sector. Increasing utilisation of pop-up stores and shared workspace, for example, helps reduce cost and risk for new designers and there are a number of schemes demonstrating viability.

As brands are looking to shift more production from abroad to locations closer to final markets, there is also a clear opportunity for the Thames Estuary to provide for production facilities that will allow faster reactions to emerging trends and more flexibility to cope with bottleneck in the supply chain. As technology moves on, new facility models, such as micro-factories, are emerging in the UK (see case study on page 45) which would be more than relevant to consider developing the sector in the Estuary given its proximity to the London market.

Fashion sits across innovation, creativity, culture, and self-expression, and is unique in the way it influences society, and vice versa. Increasing awareness around sustainability and ethics is also creating opportunities for new economic models around circularity but also new models of production spaces focusing on up-cycling and re-cycling. These are creating new links between communities, places, and the sector.

1.4 Key barriers to growth and sector needs

The review of employment and output statistics supports anecdotal evidence of growth and increasing innovation in the fashion sector in the Thames Estuary Production Corridor. The challenge for the TEPC is to capitalise on this growth with a predominantly micro-size supply chain.

A micro-size supply chain

The fashion design and manufacturing sector in the TEPC is made of small independent early-stage SMEs, micro-businesses and freelancers. Despite the greater flexibility this brings, it can hamper information exchange, make supply chain integration more challenging and is a major challenge to securing innovation capacity and investment.

Due to the nature of the business base, the sector experiences systemic barriers to growth in terms of capital investment, access to international markets, distribution and scaling up, as well as intellectual property (IP) protection, particularly given the post-Brexit scenario.

In addition, micro-businesses are competing with lower cost producers located elsewhere in Europe (e.g. Portugal, Italy, Romania, Poland) which have lower labour costs but a highly skilled workforce.

In the early stages of enterprise development, business knowledge and skills, access to finance and affordable workspace are vital. As businesses grow, access to specialist skills, technology, governance and organisational development are also key.

Recruitment difficulties and skills shortage

The supply side research highlights that the TEPC design and manufacturing sector lies in specialist, highly skilled production with an emphasis on smaller production cells, delivering shorter and quicker runs. Discussions with the sector identified skills shortages as the main barrier to growth facing the sector. Concerns were expressed in relation to:

- Shortages in essential creative, production and technical disciplines - notably around specialised manufacturing skills.
- The industry's ageing workforce, associated loss of skills and training capacity as well as recruiting difficulties.
- The impact of Brexit: the loss of freedom of movement for students and skilled workers coming from other EU countries is a real concern.
- Poor image of the sector and the workforce.
- A lack of time and resource to address workforce development in a mostly micro-size sector.
- A lack of support for appropriate work-based training.

There is a need for building up production capabilities. Focusing closely on aligning industry need with the skills pipeline will be key. This also needs to be linked to the infrastructure development agenda: investment in training people without the industry and infrastructure to keep them, is simply spending money for economic benefits elsewhere.

Lack of investment capacity

The fashion design and manufacturing sector in the UK has built resilience over the years by moving its products and services up the value chain seeking competitive advantage

through a variety of means, including specialisation, quality, flexibility, speed of response, design inputs, marketing and innovation.

Despite these drivers of change the industry still faces barriers to growth and investment. These issues are reflected by the aging condition of capital assets, under-capitalisation, the reported lack of access to investment capital as well as the lack of large 'players' that could provide a firm foundation for the sector in terms of a commitment to large orders, as well as sustained investment in the UK supply chain.

The shift towards off-shoring large production centres by retailers, coupled with a growing emphasis upon 'demand-led' innovation – where customers increasingly drive rapid product development – has placed significant pressure upon small businesses that lack the capacity, cash-flow and connections to invest in new technology.

There is an acknowledgment that funds to support capital investment would help to provide the sector with the confidence that there is a commitment to support growth in the fashion industry in the longer-term and encourage them to commit more to investment.

Lack of network, connections and identity

The make-up of the sector (micro-businesses and freelancers) and the poly-centric nature of the Thames Estuary means that the supply chain is somewhat fragmented across the geography.

This fragmentation is felt by the sector reporting a lack of network and identity for the fashion sector in the TEPC. There is no clear compelling narrative for the sector to come together around and the relationship between the East London fashion cluster and the rest of the Estuary is unclear. With no shared mechanism or structure to co-ordinate action, the sector seems to have lacked focus, and co-ordination and leadership would be needed to raise the profile of the sector and build its capacity in terms of skills and facilities. Better networks need to be created to help develop relationships and galvanise and catalyse this rich and diverse sector.

There is a need to develop links with existing fashion design and manufacturing businesses, and to explore how the Estuary can play a role in supporting innovation happening in East London and provide long-term sustainable competitive advantage to the region, catalyse growth and manufacturing development.

Lack of affordable and innovation workspaces for the sector

Outside East London, which has received significant investment to increase its provision of affordable fashion workspaces, there are a limited number of suitable, flexible and shared workspace facilities targeted to the industry in the Estuary.

Given the make-up of the sector, the industry is price-sensitive. In London, and in some parts of the Estuary, existing workspaces are increasingly vulnerable to rising rents and redevelopment of premises. The provision of affordable workspace is therefore considered as key to support business retention and development. In addition, physical spaces often provide opportunities for collaboration and networking, as well as access to industry links and business support.

1.5 Building capacity and reaching potential

The Thames Estuary fashion design and manufacturing sector offers added value in specialist, highly skilled production. The emphasis is on smaller production cells, delivering shorter and quicker runs. A key challenge for the development of the sector is how to capitalise on this with largely micro-size supply chains. There is also the need to knit together existing and emerging micro-clusters to deliver more capacity across the wider estuary.

Key consideration	Challenges	Takeaway for action
A micro-size sector	<p>A micro-size sector offers flexibility. However, it can also hamper information exchange, make supply chain integration harder and makes securing innovation capacity and investment difficult.</p> <p>The systemic barriers to growth include capital investment, access to markets, distribution and scaling up as well as intellectual property protection.</p>	<p>At the start-up stage, business knowledge and skills, access to finance and affordable workspace are vital, partners should focus on how to enable these factors.</p> <p>As the sector grows in the Thames Estuary Production Corridor, access to specialist skills, technology, governance and organisational development will also be key.</p>
A fragmented supply chain	<p>Digitalisation and demand for 'experience' is creating a need for shorter lead times and a quicker supply chain response. This is both in terms of market signals and consumer demand. It is a challenge for a sector which typically has a long and complex supply chain, further disrupted by recent events such as Brexit and COVID-19.</p> <p>There is clear evidence that physical clustering of businesses and talent in east London has many benefits. However, there is limited evidence of supply chain relationships in the rest of the production corridor.</p>	<p>The production corridor has a network of creative places, cheaper commercial and industrial land, good connectivity and latent capacity. This is an opportunity for the sector to increase production capabilities and to develop a more responsive and connected supply chain.</p>
Recruitment difficulties and skills shortage	<p>There are staff shortages in key creative, production and technical disciplines. There is a lack of specialised manufacturing skills as well as fused skills needed for innovation. This is due to historic low wages in the manufacturing sector and the loss of freedom of movements with Brexit. There is</p>	<p>There is a need to build production capabilities. Focusing closely on aligning industry need with the skills pipeline will be key.</p>

	also a lack of resources to address workforce development in a mostly micro-size sector.	
A need for innovation	<p>The fashion and wider textile industry is undergoing a rapid digital transformation. This includes increasing use of big data, technology, and more automation of production and logistics processes.</p> <p>Technology offers a chance to experiment with new materials and structures that could not be used before. This technology can also become a critical factor in the sustainable development of fashion manufacturing.</p>	The development of the Thames Estuary Production Corridor's fashion sector will depend on continuing innovation in technology, from education to design to production. Continuing adoption of digital technology and development of a range of software skills across the supply chain is vital to the industry's growth and sustainability.
Sustainability and ethics	The rationale for 're-shoring' is growing with a heightened need and demand for greener fashion. Concerns around the sustainability and work conditions linked to 'fast fashion' have led to the emergence of a new type of consumer. This is one that is increasingly conscious and inquisitive of where and how their clothes are made.	Stakeholders are aligned behind the need for transformation and the collective vision to achieve it. That gives the Thames Estuary Production Corridor an opportunity to drive that transition and create a model circular fashion ecosystem that others can follow: one that retains its creativity, is fair and equitable and provides a radical blueprint for change.
Access to space	Existing workspaces are increasingly vulnerable to rising rents and redevelopment of premises. High workspace and rent costs are often perceived as a barrier for fashion design and manufacturing businesses.	This shows the need both to protect existing workspaces and assets and invest in existing clusters and micro-clusters in Thames Estuary Production Corridor to build capacity. There is a clear opportunity for places in Kent and Essex to attract businesses and talent. However, the challenge remains for emergent and micro-clusters to promote their initiatives for further inward investment.

2.0 Planning for fashion production infrastructure

2.1 Fashion industry workspaces

The emerging growth potential of UK fashion and textile manufacturing, and the micro-size nature of the sector's firms, highlights the need for dedicated fashion and textile production spaces across the region.

Given the nature of the sector in the TEPC - which is made of price-sensitive micro-businesses - and the multiple challenges faced by the industry, there is also a growing need for scalable and fit-for-purpose workspaces that facilitate innovation and circularity, and foster creative clusters and micro-clusters which the sector typically thrives in.

Location decision factors and 'place' considerations

Place matters and the rationale for clustering

Whilst there has been little work on fashion's creative clusters, spatial needs and requirements, there is clear evidence that, for fashion designers and manufacturers, place matters - in a variety of ways.

Research from the Business of Fashion, Textile and Technology (BFTT) shows the importance of different location-based advantages of clustering for the fashion, textile and related tech sectors, depending on business status, size, length of trading, type of business structure, turnover and region. Their recent survey highlights that most businesses (60%) consider location to be of major importance for the success of their activity. It also shows that the importance of location is linked to the forming of clusters and micro-clusters, as well as specialised intermediaries, including public and private actors who provide a wide range of services to support the activities of the businesses. These can include traditional intermediaries that can provide pathways to R&D benefits such as education and training institutions, private lobbying organisations, and government funded development agencies/LEPs.

The breadth of activities emphasises the increasing role of sub-sector collaborations, networking, heterogeneity of the sector, and new and emergent fashion production and business models. Key advantages of clustering can include:

- A pooled labour market;
- Knowledge spillovers;
- Knowledge exchange networks;
- Sustained local collaborations.

Quality of place

The Covid-19 context magnified the importance of better quality of life, which can be heavily influenced by location. The emphasis on quality of life is linked to financial stability and better standards of living, which are more achievable in some areas than in others. Hence, on average, a high level of importance is also placed upon access to amenities, cultural infrastructures and workspaces.

Quality of place is also often related to good accessibility. Most fashion businesses tend to locate within central urban areas with good public transport connectivity and walkability.

Access to affordable workspace

Fashion historically located in East London because it combined cheap accommodation with easy access to market. It was a catalyst to the 'move East' of creative industries that drove the development of a high value knowledge economy in the City Fringe. Ironically, that success has now created demand for premises for housing and other more valuable economic activities that presents a huge risk of displacement to existing fashion businesses.

Due to economic uncertainty and rising costs of living in bigger cities such as London, the cost of workspace, even when subsidised, is still considered a financial barrier for micro enterprises. To date, this has led to some SMEs relocating to marginally cheaper regions of the UK where rent is affordable. Rising costs of affordable workspace and rent is often perceived as a barrier for fashion design and manufacturing businesses. This is an opportunity for areas outside of London and large cities to attract business and talent, but the challenge remains for emergent and micro-clusters to promote their initiatives for further inward investment, and for established clusters to sustain the growth of existing ecosystems. This points towards a need for financial investment into latent clusters and micro-clusters in the TEPC, to build capacity, but also in London, at risk of losing talent.

Availability and access to skilled labour

Another factor in the success of fashion in East London has been access to skilled migrant labour, which has been drawn to the area by the same combination of low cost accommodation and economic opportunity in a trend that dates back centuries. Immigrant and transient groups continue to form a significant part of the fashion workforce, and the same pressures now threaten their ability to remain in the area.

It is essential for fashion sector businesses to find the skills they need quickly. Skilled workers are essential for all businesses whose activities require access to multiple skill sets for a limited time. In a pooled labour situation, talents are often accessed through project-based short contracts and freelancing and managed by so-called creative entrepreneurs or managers⁹.

Proximity / collaboration with educational providers

In a fragmented and fast moving sector that operates in global markets with 'widely distributed knowledge', competitiveness – particularly for small businesses - depends increasingly on their willingness and capacity to collaborate. Small companies typically lack the financial and strategic capacity to sustain investment in R&D and need to draw upon the knowledge base in large corporates, universities and on one another's expertise to develop new products and services. Proximity to established businesses and venture finance can bring further benefits in the form of enterprise capital and access to new markets.

Fashion design and manufacturing businesses in the early stages of business and trading place great importance on accessing supporting organisations and partnership opportunities. Intermediaries such as higher education institutions play a crucial role in providing access to new networks and commercial opportunities. Cooperation and collaboration are linked to access to supporting infrastructure and the importance of having access to suppliers.

⁹ Rethinking clusters. Towards a new research agenda for cluster research, Lazzeretti, L., Capone, F., Caloffi, A., & Sedita, S. R., 2019

The BFFT survey further reveals that universities are central to the future of successful knowledge flows within the sector. These include universities providing fashion courses, and the increasing crossover between fashion and technology has led to fashion universities and colleges working closely with STEM subjects. It is worth noting that historically, STEM-based universities have been better at successfully attracting R&D funding and can be perceived as more likely to attract investment and support. This suggests an opportunity for greater multi-sector collaboration between traditional fashion universities and STEM universities.

Typical offer and characteristics

The following pages present a range of fashion production studio typologies. These are not prescriptive typologies but reflect the variety of models, sites and buildings that host fashion design and manufacturing activities.

<p>Purpose-built fashion studios</p> <p>High spec purpose-built studios suitable for small fashion designers and small-scale fashion manufacturers.</p> <p>Key considerations:</p> <ul style="list-style-type: none"> • Larger scale efficient buildings allow for critical mass, flexible uses, including desk-based work as well as spaces for production, and for keeping rents/running costs as low as possible; • Range of studio space sizes, typically from 150sq.ft to 3,000 sq.ft (2-14 people); • Tenants are likely to be highly price sensitive; • Can be provided by dedicated studio workspace management or specialist fashion organisation; • Urban context with good access to public transport and amenities and in proximity to higher education institutions / existing creative business base; • High ceiling (minimum 12ft) with plenty of natural light; • Typically provide shared rooms and equipment (e.g. meeting rooms, social spaces), co-working and work benches, as well as event facilities for sample sales and promotional events; 	<p>Open-access fashion workshop space</p> <p>Open-plan fashion workspace or 'makerspace' providing a workbench and shared facilities and equipment targeted to freelancers / start-up sole traders and community members.</p> <p>Key considerations:</p> <ul style="list-style-type: none"> • Typically provided within re-purposed or redundant building and spaces (e.g. industrial building, car parking space); • Floor areas are typically 1,000 to 4,000 sq.ft • Location and transport links often key to develop a wide user base - this is particularly important for spaces that cater for earlier designers who tend to be working part-time in addition to setting up/developing businesses; • Business models that cater for both the wider community and longer term tenant makers. • Open access facilities are often started with specific community and social aims and tend to receive grant funding or local authority support. • Most open access spaces offer day or session rates (after an initial induction/membership fee). • Cost of membership for full time user varies but typically £200 to £350 pp/pm
---	--

<ul style="list-style-type: none"> • Fashion uses can be mixed with other small-scale creative manufacturing activities. <p><i>Example: The Trampery Fish Island Village is a 6-acre campus of studios, facilities and social spaces spread over 10 buildings. It provides 64 studios to emerging fashion talents along with a range of supporting facilities and business support.</i></p>	<p><i>Example: FC Designer Workspace is new affordable open-access fashion workspace in Islington run by Fashion-Enter. It is targeted to both designer-makers and local residents with an interest in garment production. It has been converted from disused garages, is fully equipped and offers workshop, exhibition and training space, a photography studio as well as mentoring and masterclasses from industry experts.</i></p>
<p>Community workshop space</p> <p>Community workshop, libraries of things, upcycling, re-use and recycling spaces are more and more common. They are usually hosted within existing community and social infrastructure but can also be found in re-purposed light industrial buildings or high street commercial units.</p> <p>Key considerations:</p> <ul style="list-style-type: none"> • Typically provided within re-purposed or redundant building and spaces (e.g. industrial building, car parking space); • Small open access spaces can potentially be incorporated into or linked with existing public services and other organisations, not just other fashion/creative workspace; • Proximity to residential or retail areas is often key and means higher footfall and community links; • Floor areas are typically 500 to 2,000 sq.ft • Open access facilities are often started with specific community and social aims and tend to receive grant funding or local authority support; • Often operate as ‘libraries’ - providing skills training and becoming a social amenity; • Can be provided on a meanwhile basis: an opportunity to provide affordable space and to test viability. 	<p>Innovation workspace</p> <p>Managed fashion workspaces targeted to innovative and tech fashion start-up businesses, usually provided by higher education institutions or sector specialist operator. Typically providing business support/incubation programme as well as high spec facilities and specialist equipment.</p> <p>Key considerations:</p> <ul style="list-style-type: none"> • Typically purpose-built or provided within light industrial or business park type building; • Urban or business park type context with good access to public transport and in proximity to higher education institutions / existing creative business base. • If provided by higher education institutions, these spaces typically provide research facilities along with spaces for students and graduates. Typically have strong industry links and develop partnerships with brands. • If provided by a sector specialist operator, fashion tech workspaces usually offer spaces for long-term tenants as well as shorter term workbench space. They are usually heavily specialised and provide business development support and incubation programme.

Example: The Sustainable Studio in Cardiff provides a range of affordable workspaces and creative facilities for ethical fashion designer and maker, and other creative industry professionals. It hosts a textile up-cycling and recycling workshop open to the wider community, providing workshops and educational programme around sustainable fashion practices.

Example: The Fashion Tech Farm is a studio, incubator and production facility for innovative fashion, based in Eindhoven, The Netherlands. It offers space for permanent SME tenants as well as shorter leases and incubation programmes. Fashion Tech Farm functions also as a lab dependence for the Eindhoven University of Technology (TU/e), supporting students with access to materials, machines and expertise.

2.2 Design typologies¹⁰

The workspace design typologies examples presented in the following pages are not intended as prescriptive models. Creative industry workspace takes many forms and a bespoke approach will be needed to suit different circumstances. For example, in some locations an existing space may be re-purposed for a new creative use, while elsewhere new provision may come in the form of a brand new building. Often, it will be appropriate to combine several different types of space within the same building or develop a cluster of complementary workspaces through co-location to form a 'hub'. For example, Poplar Works is mixing individual studio spaces, with industrial open-access workshops and office spaces. Therefore, the typologies are intended as a guide to the main types of space that are needed and the factors that should be considered when designing and planning new provision.

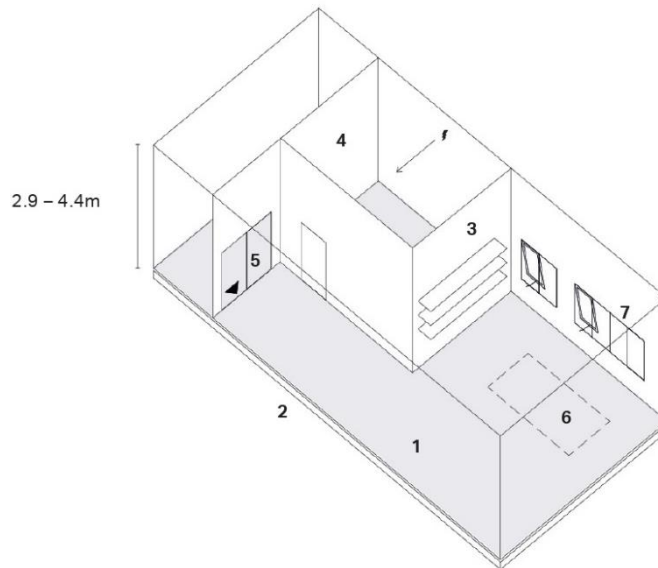
Each typology includes an illustrative example and a case study. The typologies presented are:

Typology	Sectors	Illustrative example
1. Creative studio space	Small scale design production (e.g. fashion design, bespoke manufacturing services)	Fashion designer studio Jewellery studio
2. Production space	Activities requiring specialist and/or industrial facilities (e.g. larger scale fashion and textile manufacturing, fabric dyeing and printing)	Textile manufacturing workshop

¹⁰ See further detail and requirements for other facility types here: [Good Growth by Design: Designing Space for Culture \(london.gov.uk\)](http://london.gov.uk)

1. Creative studio space

This typology spans workspace for fashion design and small-scale making activities, such as jewellery or button making. When less than 30sqm, these spaces are usually provided within larger buildings to allow multiple managed units. Larger creative studio type space spans workspace for creative uses that have outgrown small creative studios space. This may be through taking on larger numbers of staff or having specialist facilities that necessitates more space.



Spatial/Organisational Structure
(Note: Not drawn to scale)

Key

- 1 32-500m² floor area
- 2 Floor loading between 3.5-5kN/m²
- 3 Larger space allows for additional storage of materials
- 4 Subdivision of space into clean and 'messy' space or for specific functions is key to larger creative studios
- 5 Access for large scale works or deliveries facilitated by shared or ground floor access
- 6 Specialist large scale equipment to be considered in fit out
- 7 Natural cross-ventilation with manually operable windows

Typical Characteristics

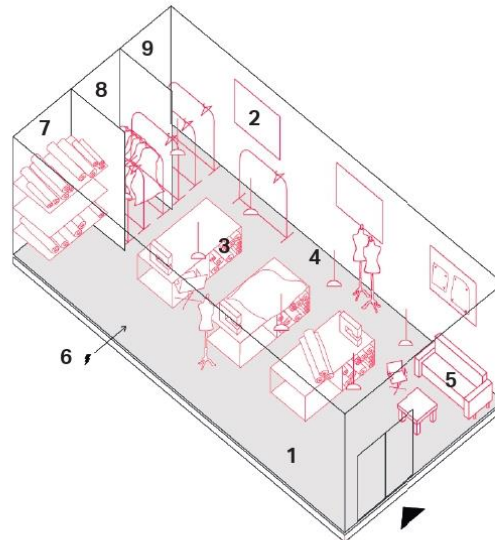
- From 8sqm (individual studio) to 500 sqm
- Minimum ceiling height of 3.5m
- Provision on any floor
- Suitable for refurbished spaces
- Some facilities provide shared facilities (e.g. recording studios or production room)
- Can be co-located with residential

Suitable activities

- Fashion design and small-scale production
- Bespoke manufacturing services such as pattern cutting, sample making, sewing and fitting.

Example: Fashion designer's studio

A fashion design studio will usually be composed of a number of fabric and cutting tables to undertake activities such as toiling, pattern cutting and sampling, a design office space, large storage spaces for materials as well as changing rooms.



Illustrative fit-out examples
(Note: Not drawn to scale)

Key

- 1 Workspace to be arranged with consideration to process and function
- 2 Windows reflect height of space to maximise lighting
- 3 Storage for materials integrated into workspace
- 4 Low lighting for precise work
- 5 Space for buyer/client meetings
- 6 3-phase power and lights
- 7 Fabric storage
- 8 Archive storage
- 9 Stock storage

Poplar Works, HARCA

Address: Poplar, E14 0UX

Business: Fashion designer and maker

Space: Studio spaces in re-purposed garages

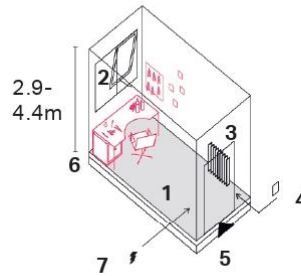
Poplar Works is a partnership between Poplar HARCA, London College of Fashion, UAL and The Trampery. Its creation has been supported by the Mayor of London and are part of the Fashion District. It provides shared workshop spaces as well as a range of individual studio units for designers, makers, jewellers, experienced business owners, and first-year startups. The studios vary in size (from 2 to 7 people) and pricing starts from £18.70 per sqft / £168 per month.

The studios are publicly funded and aimed at supporting early stage fashion businesses to flourish. Whilst anyone is open to apply for a space, they have some basic criteria for businesses to ensure that the space is supporting the local economy and entrepreneurs

in the best way possible. Criteria for selection include evidence of connections to the local community, entrepreneurial skills, sustainability and innovation.

Example: Jewellery studio

Jewellery studios are typically hosted within small cellular units and made one or two workbenches, lockable storage space to allow for storing of precious stones and materials. These types of studio could also be hosted within cleaner office spaces.



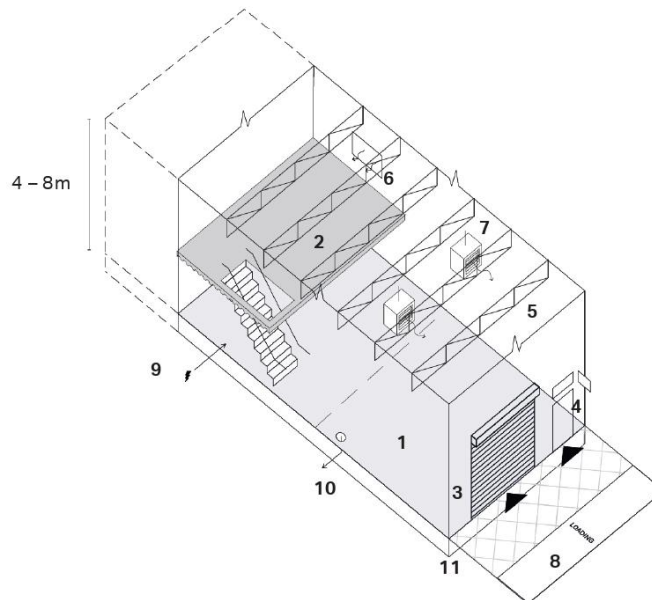
Illustrative fit-out examples
(Note: Not drawn to scale)

Key

- 1 Less than 11m² floor area
- 2 Daylight and natural ventilation
- 3 Heating through wet system or space heaters
- 4 Potential for sub-metered servicing
- 5 Locking door
- 6 Locker
- 7 3 phase power is preferable

2. Production / workshop space

This typology covers medium to large fashion production activities. By their nature, these activities have greater spatial requirements than any of the previously described categories, are likely to require servicing by larger goods vehicles and may have specific servicing requirements such as three-phase power and mechanical extract equipment.



Spatial/Organisational Structure
(Note: Not drawn to scale)

Key

- | | |
|--|---|
| 1 Less than 500m ² floor area | 8 External loading area |
| 2 Double height ceiling allows for administration mezzanine. May also be provided adjacent to loading doors in wider units | 9 3 phase power |
| 3 Roller-shuttered doors for deliveries (min. height 3.7m and min. width 2.4-3m) | 10 7.5 ton vehicle access and occasional articulated vehicle access |
| 4 Separate staff/ visitor access with signage | 11 Drainage from floors areas (suited to food production/ brewing) |
| 5 Spanning structure creates flexible internal layout | 12 Floor loading- refer to table |
| 6 Radiator heating to office areas | |
| 7 Blow air heating for work areas | |

Note: Typically rectangular plan form with ratio of long to short sides between 1:1 (where no particular traffic routes are dictated by process) and 3:1

Typical Characteristics

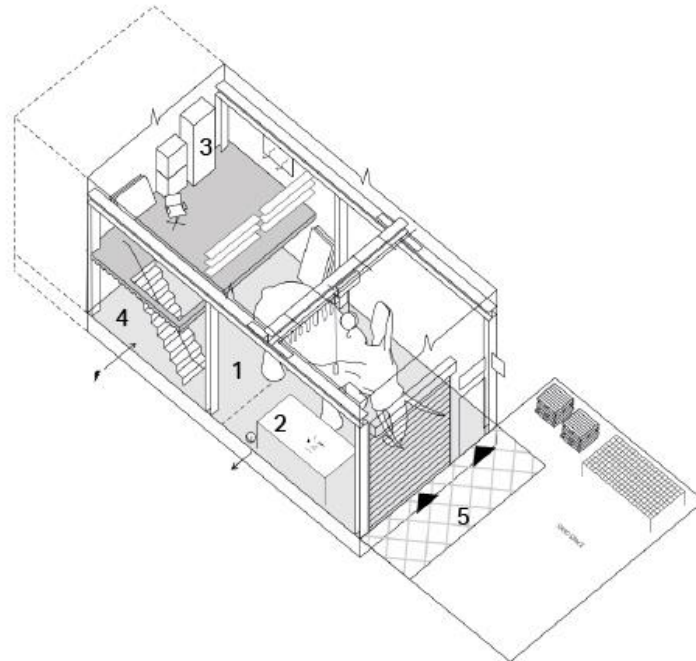
- From 150 to 500sqm
- Minimum ceiling height of 4-4.5m / double height spaces allow for production areas where lifting/handling may be required
- Best provided at street level
- Some need for large entry access and loading facilities
- Facility to take any production services (water, gas, electricity) to any point within production area and at high power.
- Need for sound insulation/attenuation

Suitable activities

- Fashion and textile manufacturing, fabric dyeing and printing, 3D fashion production

Example: Textile manufacturing space

A textile manufacturing workshop or studio will typically have heavier or messier machinery and equipment than a fashion designer and maker studio. These can include digital or traditional screen-printing facilities, a dye lab, or industrial embroidery machinery.



Key

1. Workspace to be arranged with consideration to process and function
2. Low lighting for detailed work
3. Appropriate scale of storage of works, both current and archived
4. Storage for materials integrated into workspace
5. Loading space for both bulk deliveries and exports

Building Bloqs' Textile Studio

Address: Enfield, N18 3QT

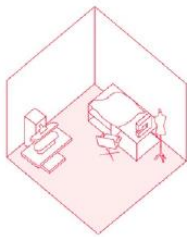
Business: Fashion and textile design and manufacturing

Space: Open access textile workshop as part of wider makerspace facilities

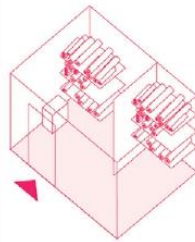
Established in 2012, Building Bloqs are a not-for-profit open workshop space created to provide London's freelance makers, SMEs, start-ups and designers with the tools they need to establish and grow. Building Bloqs is one of Enfield Council's key partners on Meridian Water regeneration scheme and is playing a major role in providing creative manufacturing workshop space while the development is being constructed and beyond. It is located in a large industrial shed and new extension is currently being built on site. It will become London's biggest makerspace.

The textile workshop provides 12 bays/workbenches as well as a range of specialist machinery and equipment. Pay-as-you-go access means that members can scale-up and scale-down the use of equipment and space depending on their current workload. Members also can collaborate, exchange knowledge and skills, learn, innovate and showcase.

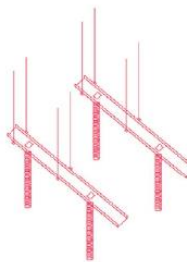
2.2 Specialist facilities and key requirements



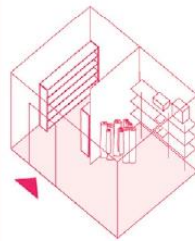
Fashion studio spaces often benefit from high proportion of wall area and storage.



Storage needs are substantial, potentially taking up to 50% of the studio space unless there is communal storage space available. Three subsets of storage should be considered:



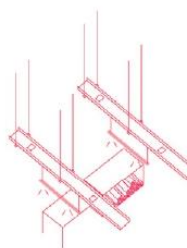
Multiple electrical sockets are needed for multiple pieces of equipment, over and above conventional requirements.



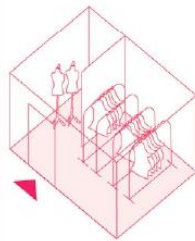
1. Materials for production



2. Organised stock for sale

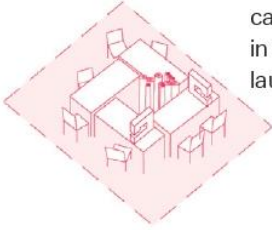


Natural light is preferred, but not direct sunlight due to the possible sensitivities of fabric materials. Artificial lighting with high colour temperature is needed for detailed work.



3. Collections archive

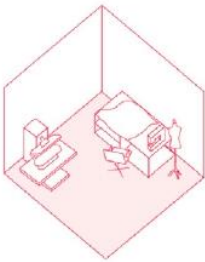
Movable workbenches better adapt to different work stages. People working out of a studio can double or quadruple in the run-up to a season launch or show.



Workspace for fashion designers will hold a dual purpose; a workshop for creative production, and as an office from which they run their commercial business.

A workspace being presentable to clients and buyers is key whilst remaining a functional space for production.

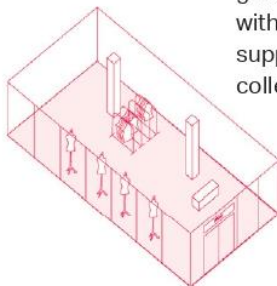
Additional tools, such as buttonholing machinery, steam presses, 3D and digital fabric printing are often rented or shared as communal equipment.



24-hour secure access to studios is increasingly in demand.

The location of fashion studios is important, as it will often relate to the brand of the fashion label, and the willingness of clients to visit.

For some high-end designers, a museum-grade archive is needed, with climate control and support of extensive collections.



Natural ventilation is ideal, with little work or equipment requiring mechanical ventilation.

For large creative studios: 3 phase power should be preferred.

For small industrial spaces: 3 phase power should be standard.

2.3 Learning from elsewhere

Leeds Innovation District & Future Fashion Factory programme

R&D, innovation and cluster development

Context

Leeds city region has 7,300 manufacturing and engineering businesses, two-thirds of which are specialists in advanced processes, R&D and product development. These businesses employ 144,000 people, representing one of the most extensive manufacturing bases in the UK, generating £7 billion a year, or 12% of the region's economic output.

Future Fashion Factory is a £5.4 million R&D partnership running until 2021 and exploring and developing new digital and advanced textile technologies to boost the design of high-value creative products. It is part of the Creative Industries Clusters Programme, an £80 million initiative managed by the Arts and Humanities Research Council (AHRC) as part of the Industrial Strategy. It is led by the University of Leeds in collaboration with the Royal College of Art and University of Huddersfield, as well as a number of industrial partners.

Best practice

Future Fashion Factory explores and develops new digital and advanced textile technologies to boost the design of high-value creative products, helping designers and manufacturers in the fashion and textile industry to work more collaboratively in a circular economy to increase productivity, shrink lead times, lower costs and reduce waste.

It is an industry-led challenge in which designers will lead a highly creative process of applying, co-developing and implementing new textile and industrial digital technologies (IDT) in collaboration with supply chain manufacturers and other technology experts. The R&D cluster is delivering new creative innovation opportunities, new products, shorter product development and design lead times, and reduced costs – substantially increasing global industrial competitiveness and productivity.

Key partners include Abraham Moon & Sons, British Fashion Council, Burberry, Camira, the Textile Centre of Excellence, the UK Fashion and Textile Association Wools of New Zealand, Yorkshire Textiles and many more member organisations.

The Future Fashion Factory is part of Leeds Innovation District where science meets creative arts and healthcare. The Innovation District has already benefited from a series of significant developments, adding momentum to plans which will see regeneration and inward investment opportunities developed in the area. Recently delivered or on-site investment includes Leeds Beckett University's £80m creative arts building, an expansion of Leeds Arts University, and the University of Leeds has invested £40m in the new Nexus innovation hub, providing seamless access to its research and innovation expertise.

Impact

The R&D cluster is delivering new creative innovation opportunities, new products, shorter product development and design lead times, and reduced costs – substantially increasing global industrial competitiveness and productivity. The research will also feed into the creation of new taught modules, degree programmes, and industrial apprenticeships to create multidisciplinary STEAM-based designers, possessing a unique combination of art, design, science and technology competencies that will enable them to fill existing skills gaps.

Relevance for TEPC

Sector R&D programme linked to wider Innovation District development;
R&D investment into high growth area for the sector innovation: multisector collaboration with smart, technical and medical textiles innovation. digital skills and process development.

Milan Fashion Cluster

Developing and retaining craft skills and variety in the fashion supply chain

Context

The way in which Milan has historically paid close attention to quality across the whole of its fashion supply chain enabled its small and medium sized craft manufacturing businesses to quickly switch their focus to high-end specialist manufacturing in a strategic response to increasing outsourcing of mass produced apparel to low cost countries.

The Milanese industry differs from the UK model in that it is dominated by several large maisons (fashion labels) rather than by multiple retailers. These maisons are physically clustered together in the city centred and surrounded by a supply chain of highly skilled producers extending beyond the boundary of the Metropolitan district. This proximity reinforces both opportunities for a shared commitment to quality, reflected in a proposal to certify suppliers. It also benefits shared involvement in innovation and the responsiveness of the supply chain to changing patterns of consumer behaviour.

Best practice

The large fashion houses recognise the interdependency of the cluster and the strategic benefits of keeping (in particular) high-end production within the local supply chain. This means that they actively seek to support small craft producers and specialist manufacturers as a way to retain variety and diversity of supply within the cluster, preferring this to the option of low cost outsourced production in order to retain transparency of the production process and control over the quality of the end product.

Milan's fashion manufacturing and design sectors stand for quality in the minds of consumers and designers alike, and the industry works to ensure that this is reflected from top to bottom of the supply chain. Government, Trade and Private sectors have collaborated to ensure that this simple but powerful message has been heavily promoted around the world for over 50 years

Impact

This has resulted in:

- Immense added value in consumers' minds around the world for the "Made in Italy" label;
- Strong global reputation as a "Big Four" fashion capital.

Despite the reshoring of some high-end production that has taken place during this decade, London, like Milan, is no longer a competitive location for the production of mass or entry level goods. This has led some suppliers to pursue the same strategy as those in Milan: a greater focus on high level production and finishing as a specialism.

Relevance for TEPC

Despite a very different context, there are key learning points from Milan that are relevant for TEPC:

- Supporting specialist and added-value production companies (through addressing information failures to improve coordination within the sector) and exploiting close proximity and links between local manufacturers and designers.
- Closer integration and increased knowledge exchange between different levels of the supply chain leads to greater confidence in investment in skills and innovation amongst smaller producers.
- Actions of fashion labels to support diversity in the supply chain enhance the sustainability and competitiveness of small manufacturers specialising in sampling and CMT ('cut, make, trim), essential if the TEPC is to develop capacity to produce the small quantities needed by independent designers.

Fashion Enter & Zund micro-factory, London

A state-of-the-art sustainable manufacturing facility

Context

In mid 2021, it was announced that St Albans-based leading manufacturer of multifunctional digital cutting systems Zund UK partnered with social enterprise Fashion Enter to develop the UK-first micro factory.

Based at Fashion-Enter's London headquarters, the project is aimed at demonstrating to brands and retailers how microfactories can be developed for apparel and garment manufacturing in the UK, using the latest technology and advanced workflow processes. Located in Haringey, London, Fashion Enter has a Factory for large scale production and a Fashion Studio for grading, sampling and small productions runs. They produce for leading retailers, designers and new business start ups. and provide mentoring, business support and skills development for fashion manufacturers along with mentoring courses and apprenticeships. The Factory has a capacity of 10,000 garments per week and has grown steadily in the past 10 years from its original capacity of 5,000 garments per week. It has an impressive list of customers, including ASOS, M&S, F&F among others.

Best practice

Whilst the globalisation of fashion supply chains has seen fashion manufacturers in developed high wage countries lose business to larger scale suppliers in lower cost countries, the trend towards digitisation and mass customisation means micro-factories

close to customers is likely to become a key component in the future of fashion manufacturing, with benefits including speed-to-market, flexibility and a lower carbon footprint.

Micro-factories are factories that are highly automated, small in scale and need fewer resources to set up and run compared to a traditional factory. They are more flexible to shift between different product types, can manage smaller quantities efficiently, and are less reliant on skilled workers. They also provide the speed of response and mass customisation that customers want. The concept is not new, especially in industries making components and sub-systems for larger assembly line factories, such as engineering and automobile manufacturing.

The micro-factory project in North London has for objective to demonstrate a sustainable micro-factory concept in London. The micro-factory paradigm is “Sell, Produce, Deliver,” and not “Produce, Sell, Deliver”.

Expected impact

The technology installed in the existing warehouse is expected to enable Fashion-Enter to rapidly deliver test-and-repeat small product runs on behalf of online fashion retailer ASOS. It is expected to encourage on-shoring garment manufacturing with a proof of concept for the fashion industry – a micro-factory production centre empowering localised partnerships with designers, more end-to-end fulfilment control with a single site, no minimum order quantity requirements or dealing with complex international supply chains.

The factory has an ethical open-door policy and the concept can be expanded to a distribution manufacturing model, whereby producers can fulfil from multiple manufacturing hubs across different regions, while ensuring process and product are consistent at every site

Relevance for TEPC

Development of micro-factories have the potential to develop sustainable and ethical manufacturing activities and jobs. It can also address challenges such as using waste as a raw material in a circular economy, integrating AI into intelligent data-driven design and manufacturing, and developing the UK’s agile manufacturing and product development capabilities to support re-shoring.

The Textile and Fashion Hub, Melbourne

Developing capacity of existing fashion production businesses through training

Context

In the Melbourne region, 86% of the fashion and textile industry is made up of small to medium enterprises, often without a strong network to support them and very little funding allocated to assist them. Based on this diagnostic, the Textile & Fashion Industries of Australia (TFIA) felt it was vital to create access to space, equipment, connections, knowledge, experience and investment that would help grow these businesses.

The Textile & Fashion Hub is a partnership between the University of Kangan and the government. It is a fashion production hub and training facility for textile and fashion manufacturing businesses. It is based on the concept of the guild: a network or association of sorts which provides professional creatives within the fashion industry with a space to learn new technologies and techniques broaden their networks and importantly cope with the challenges and changes that come with being in business.

Best practice

It's a professional, state-of-the-art space that brings together small to medium fashion businesses and arms them with the tools for success and innovation – a place for businesses to develop. It offers sampling & short run manufacturing services, industry relevant training courses for designers and small businesses as well as customised industry training for manufacturers.

The Textile & Fashion Hub offers programs and workshops, cutting-edge equipment and facilities for product development and a place to work from in Melbourne, as well as linkages nationally through its partnerships.

Workshops focus on essential skills such as digital printing, knitwear design, product development, and CAD systems; as well as sessions on business mentoring and social media strategy, IP, branding and export opportunities.

In addition, the Textile & Fashion Hub also provides access to the latest equipment and technology, often out of reach for many designers. This includes whole garment and seamless knitting machines, digital fabric and garment printers, a CAD room for pattern making and a 3D body scanner. There's also a pre-production room, resource library, Pantone and knit library, access to Stylesight and all the latest design software.

An innovative venture, the Textile & Fashion Hub plays a large part in supporting the local fashion industry. The focus on sustainable practices and efficient product development is forward looking and the project combines freethinking with a variety of high level skills and knowledge so that businesses can grow, and new markets can be explored with confidence and originality.

Impact

The hub provides bespoke training to Australian fashion manufacturers, subsidised by the government. This allows businesses to learn new skills and familiarise themselves with new technologies and processes. Since the opening of the hub in 2018, 90 businesses have benefited from support and training. This has allowed half of them to double in size and production capacity in two years.

Relevance for TEPC

Building regional capacity through business support and training targeted to existing fashion production businesses; Education and network hub.

Fashion Green Hub, Hauts de France

A network of circular economy expert to steer fashion production's growth trajectory and an alternative up-cycling hub

Context

The Fashion Green Hub is a French charity which has played a key role in the responsible fashion landscape in the north of France in the past ten years, working on topics including eco-design and new business models in the industry. Founded in 2015, Fashion Green Hub is supported by local authorities and the State as well as professional organisations such as the Union of Textile and Clothing. Today, it brings together 200 fashion industry players, schools and young designers.

Best practice

The charity is working with the region and individual local authorities and acting as an advisor for the development of the regional circular economy textile strategy. It provides a range of expertise on different subject matters and are able to draw on an extensive network of professionals. Fashion Green Hub is notably at the origin of the Fashion Tech Days. Experts and brands meet to advance on “green” innovation in fashion, where there are days of seminars around a range of crucial topics. The association also organises the Fashion Green Days, the forum for circular and eco-designed fashion.

The charity also provides funding through its production, training and service activities, from its “headquarters” and workshop, the Plateau Fertile. Fashion companies are taking over the expertise of this paradoxical start-up (an agile and reactive structure), but above all advocating social, human and local values.

The Plateau Fertile is a 400sqm ‘third space’ based in Roubaix in old industrial building. It provides a manufacturing workshop (prototyping and mini-series) for young designers, specialised in upcycling. Supported by a team of 10 experts, the young designers and makers are accompanied in their local manufacturing and upcycling projects.