

Foreword

The story of fashion is the story of technology. London needs to act now to stay at the centre of fashion-tech, which is re-shaping the fashion industry worldwide.

Technology brought us mass production, took manufacturing offshore and lost London its rag trade. Fifty years on, fashion-tech is bringing us mass personalisation, grounded in artificial intelligence and machine learning. This time, London needs to grab its advantage.

Even now, fashion-tech is weaving wearables into our clothes, alongside haptic feedback and conductive yarn that enables touch interactivity. Garment construction now uses 3D printing and laser-welding. Retail will be among the first industries disrupted by mixed reality. Blockchain will safeguard luxury goods from counterfeiting.

Like hi-tech, fashion-tech is a London story. As this research shows, hundreds of fashion-tech businesses have grown up organically in London. Some of the leading companies in this field are British. It should be no surprise. London is the creative capital of the world, and East London is the heart of the UK's digital and knowledge economy.

But as the research also suggests, these businesses can only achieve growth with significant support in skills, advocacy, innovation and investment. To deliver this support, we are creating an industry-led company which will reinforce this creative strength, giving fashion-tech the boost it needs in the East London fashion cluster.

This is a pivotal moment in London's story as the world's capital of fashion. Let's make London the home of fashion-tech.

Professor Frances Corner OBE

Head of London College of Fashion Pro Vice-Chancellor, University of the Arts London

Executive Summary

Background

The vision for the East London Fashion Cluster (ELFC) is of a 21st century innovation quarter where fashion, technology, business and education meet; where companies compete to out-innovate each other; where they collaborate to turn heads, all over the world.

ELFC has been proposed as a response to both East London's historic and re-emerging status as a centre for fashion innovation, design, manufacture and retail, and the opportunities presented by the imminent relocation of University of the Arts London (UAL), to Stratford Waterfront, a 73,600m2 'world-class cultural and education district' (CED), an £800 million public-private partnership planned for the Queen Elizabeth Olympic Park. This will consolidate six existing sites of the London College of Fashion (LCF) into one new, purpose-built campus, alongside University College London, the Victoria & Albert Museum and Sadler's Wells, adding to the existing presence of education and research institutions on Queen Elizabeth Olympic Park including Birkbeck, Loughborough University London (LUL), Here East, BT Sport and Studio Wayne McGregor. It is a fantastic opportunity to secure the College's position as a global leader in fashion education, research, business incubation and social responsibility. It also places a duty on the College to contribute to the positive place-making, participation, economic, educational and social outcomes that CED is expected to deliver in an area of continuing social and economic deprivation, despite the success of the Olympics.

UAL's presence in the CED will be both a physical representation of the scale and ambition of London's fashion industries and a hub for their global expansion, providing businesses with access to emerging technologies, attracting investment from fashion and technology companies (and new investors) with the scale and infrastructure to move quickly into new markets that will in turn create opportunities for fast-moving and innovative SMEs. It will underpin the status of London as a creative world fashion capital and act as the beacon of a new Thames Gateway Production Corridor.

An industry-led cluster plan is being developed in partnership with UAL, working closely with UK Fashion and Textiles (UKFT), British Fashion Council (BFC), LLDC and Poplar HARCA, and in consultation with London Boroughs across East London and the Upper Lea Valley.

Why the fashion sector?

The role of creative industries in driving economic growth, particularly in London, is well documented; less well understood is the scale, scope and potential of the UK fashion sector. Fashion is a **huge, export-driven sector** of regional, national and global importance, but one that is sometimes perceived (wrongly) as an esoteric and 'cottage' industry.

- The direct value of the UK fashion industry to the UK economy is estimated at £28.1 billion twice that of the automotive or chemicals industries.
- Fashion's total contribution to GDP is greater than £50 billion equivalent to 2.7% of UK GDP.
- The sector represents 22.2% of all retail GVA and 2.5% of UK manufacturing output.
- The global fashion industry is worth an estimated US\$2.4 trillion to US\$3 trillion per annum.^{2/3/}

Reversing decades of decline

East London has a rich fashion and craft heritage, which has, in recent years shown signs of revival. The originality and vibrancy of its design culture is a recognised factor in London's distinctiveness as a world fashion capital. We are already witnessing strong organic growth of fashion design and retail in East London - and high-end fashion manufacturing is returning to growth after decades of decline.

- Fashion in East London and the Upper Lea Valley now contributes £1.4 billion in GVA up by £500m (57 per cent) between 2010 and 2015.
- At the start of 2016, 36,200 people were directly employed in fashion retail, design, manufacture, distribution and advertising an increase of 10,900 jobs since 2010.
- East London is home to (23 per cent) of the capital's fashion enterprises and employment and is driving the growth of London's fashion design, retail and manufacturing,

UAL's relocation of LCF to CED has triggered the opportunity to develop a wholly new environment for fashion innovation and a new destination for investment in fashion business in the UK. It will bring a global talent base to catalyse the development and growth of existing and emerging production corridors across East London and the Upper Lea Valley, creating a new Fashion City in East London.

Fashion at the heart of the knowledge economy

A new Fashion City in East London can capitalise on its location in the heart of the UK's knowledge economy to focus on its strengths in generation of IP. The incubation of new companies, business models and support for innovation in products and services that result will emphasise that the design and creative inputs of fashion, and its huge global reach, are as much a driver of innovation in the development of new products and services as are science and technology. This creates the opportunity to reimagine the fashion sector in London as a creatively-led digital manufacturing cluster; which in turn will help redefine it as a source of new opportunities for investment.

Structural issues

In common with the rest of the capital, East London faces a range of structural issues around access to workspace, finance and skills:

- Property the success of other sectors of the knowledge economy has exacerbated the conflict between increasing
 housing supply and safeguarding business premises. Existing fashion businesses in East London face a real risk of
 displacement; industry bodies face a day-to-day struggle to help those firms identify new premises accessible to both
 customers and employees.
- Skills physical displacement also risks dislocation from a local workforce with the specialist skills needed to support
 high-end fashion manufacturing. High end fashion production has an outdated and unattractive image of 'sweatshop'
 labour, particularly for young people, making recruitment difficult. Many fashion manufacturers currently lack 21st
 century skills, from basic software to utilisation of emerging digital fabrication methods. This is compounded by a lack
 of garment technology skills among young designers.
- Access to finance fashion designers suffer from a systemic lack of access to finance to stem crucial gaps in cash-flow, particularly in creation of new collections. Tech investors are largely unaware of the potential for fashion tech. Both factors combine to constrain investment in creativity and innovation.

Brexit

Brexit, and the threat it represents to freedom of movement for students and skilled workers coming from other EU countries is a real concern to employers. Fashion operates in global markets that are impacted by current geopolitical volatility. The potential imposition of tariff and non-tariff barriers to trade with Europe, and threats to free trade arrangements elsewhere in the world, could impose real constraints on what is an export-led sector.

Need for intervention

Failure to address these barriers could lead to further tightening of labour supply and increasing costs of inputs in a way that would threaten the survival of many specialist fashion manufacturers in East London. This would in turn have a negative impact on the ability of new designers to translate their creative ideas into new collections; and undermine the ability of UAL and the other 20 fashion colleges within the M25 to continue to recruit the overseas students who are both a source of income, new ideas and new businesses. The ratchet effect of loss of capacity, opportunity and reputation could ultimately threaten London's status as a world fashion city.

Proposal for a special purpose vehicle

The key recommendation of this report is to establish a special purpose vehicle, the East London Fashion Cluster, to accelerate investment in skills, workspace and R&D and clear away the barriers to growth. ELFC will support the development of the unique combination of a dedicated world class hub for fashion education, design, business and technological innovation within an established cluster of educational, technology and cultural institutions at CED. This will initiate a model for change with the potential to transform the competitiveness and productivity of the fashion and textile industry in London and across the UK to allow the sector to be properly valued as part of a 21st century knowledge economy. Further detail of the SPV is provided below.

Industrial strategy opportunity

The development of a fashion sector plan linked to the UAL move has been given fresh impetus by the offer in BEIS's recent draft Modern Industrial Strategy of support for place-specific 'sector deals' (funds for skills and research) available where an industry can come together, demonstrate it has a clear understanding of the issues and problems facing it and devise a clear set of solutions.

This is an opportunity for fashion: there is no better sectoral or industry candidate in which to undertake a value chain analysis and propose innovations across that chain. Discussions with EPBU have indicated that the fashion sector would be a worthy recipient of such support and could usefully feature in the GLA's response to the Industrial Strategy Green paper.

Executive Summary Footnotes

- 1/ British Fashion Council and Oxford Economics (2016). The Value of the UK Fashion Industry
- **2/** McKinsey & Co (2016). Global Fashion Index http://www.mckinsey.com/industries/retail/our-insights/ the-state-of-fashion
- 3/ Fashion United (2016). https://fashionunited.com/global-fashion-industry-statistics

Trends

Global fashion trends are not limited to design. Technology, supply chain management and changing consumer behaviour all shape global markets:

Disruption- digital technologies reshape markets and value chains for fashion content and information, leading to an opportunity for innovative businesses to create value added services, applications and products. ICT forms the enabling element that brings to market these services, applications and products across all sectors through production, distribution and e-commerce.

Digital manufacturing- bringing together fashion and technology sectors will stimulate a 'pull through' of innovations in digital manufacturing that will have wider applications in other sectors. There is an opportunity here to reimagine London's fashion sector as a globally significant digital manufacturing cluster that outcompetes other cities, increases high value employment opportunities and drives inward investment.

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

Converging platforms, diverse audiences

Together these changes highlight that, as much as a 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. This means that the supply chain needs to respond more quickly and accurately to signals of consumer demand; with physical product distributed over a more dispersed range of platforms and market sub-sectors. The current disruption of markets by digital technology and changing patterns of world trade means there will be no greater moment for the UK fashion industry to come together, demonstrate it understands its own structural issues and can bring forward innovative yet soundly based solutions for its own growth.

GROWTH SCENARIO

Maintaining London's reputation as a world creative fashion capital will depend on growing its ability to harness fashion-tech to a range of new products and experiences. The challenge of building and sustaining a productive, high-growth and job-creating fashion sector in London is to increase the absorptive capacity for innovation across all parts of the fashion supply chain.

Physical clustering of fashion design, production and other service providers – as is beginning to happen at Hackney Walk, and reflected in plans for Fashioning Poplar, Plexal at Here East and The Trampery at Neptune Wharf, as well as for UAL at Stratford Waterfront – acts as an 'amplifier' for the signals from the market and helps all members of the cluster become more productive, more competitive, and more creative. The SPV will have a role in further leveraging fashion's relationships with and proximity to East London's knowledge economy. It will accelerate sharing of ideas and stimulate interdisciplinary collaborations of all kinds between the fashion sector and knowledge assets in Tech City, MedCity, the City and Canary Wharf.

UAL's presence at Stratford Waterfront is critical in this: it offers a physical hub site and meeting point for the growth and development of creative enterprises, linking technology, culture, art and the visitor economy. It will crystallise the value of fashion inputs to a range of applications and sectors: and catalyse a new Fashion City in the East to drive the growth of London as the world's leading fashion tech city.

By the year

2050

With strategic support for R&D and increasing investment in digital skills and technology, East London's fashion industry can skip a generation and lay the ground for London to be the undisputed centre of fashion-tech and the world creative fashion capital by 2050.

The fashion sector in East London and Upper Lea Valley

Our review of employment and output statistics, supports anecdotal evidence of growth in the fashion sector in East London, led by retail employment at Westfield, the emergence of Hackney as a design powerhouse and a reemergence and reshoring of value-added manufacturing across East London and Upper Lea Valley.

Key findings

Findings of the study confirm that if London is to continue to support world leading creative designers and to grow fashion as a broadly- based employment sector including a sizeable number of jobs in manufacturing, there is an urgent need to build capacity and promote innovation and resilience across the whole value chain.

Fashion contributes over £1.4 billion in GVA and 36,000 jobs to the economy of East London and the Upper Lea Valley.

- There is a clear concentration of Specialist Design Services in East London (see Figure 2 below)
- There is evidence of strong Manufacturing growth in the Upper Lea Valley; despite its structural challenges, manufacturing is the fastest growing fashion sub-sector, with a 94% increase in employment and 128% increase in GVA between 2010 and 2015.

Analysis of the statistical base supported the perception of growth in East London's fashion sector:

Between 2010 and 2015, the direct economic contribution of the fashion sector to East London and Upper Lea Valley, measured by GVA, grew from £901 million to £1.417 billion per annum

AN INCREASE OF BEFORE INFLATION

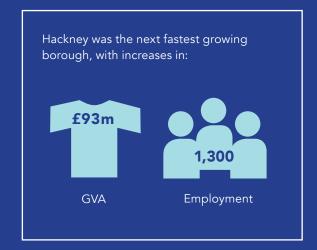




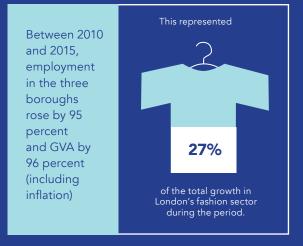
Inner East London remains the core of the fashion district:

The inner East
London boroughs
of Hackney,
Newham and Tower
Hamlets together
contribute 56
percent of East
London and the
Upper Lea Valley's
fashion output
(£713m in 2015) and
16,000 jobs.

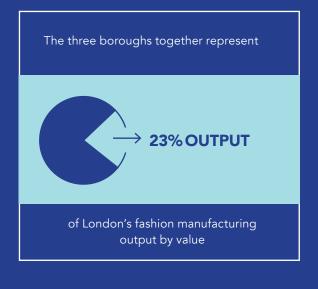












East London + Upper Lea Valley:	Total	Design	Retail	Dis- trib'n	Manufac- turing	Adver- tising
Employment 2010	25,300	600	17,600	3,800	3,300	0
Employment 2015	36,200	1,000	24,900	3,800	6,400	100
% change in Employment between 2010 and 2015	43	67	42	0	97	32
% as a total of all Employment in 2015	100	3	69	11	18	0
GVA 2010 (£m)	901	52	493	239	113	4
GVA 2015 (£m)	1,417	102	787	264	256	7
% change in GVA between 2010 and 2015	57	99	60	10	125	106
% of total GVA in 2015	100	7	56	19	18	1

Figure 1 Summary of baseline analysis of the fashion sector in East London and Upper Lea Valley

The majority of East London boroughs have a concentration of specialised design businesses. The table below show location quotients (LQs) derived from BRES data for design employment in East London. Any score above 1 (marked here in red) indicates a higher than average concentration of design-based businesses⁸/. We observe a pattern of increasing concentration of design business in most boroughs. Hackney's score of 9.46 is notable.

These figures indicate a trend of increasing design capability and clustering in East London – and, as design is understood to be a driver of many other sectors, is a good indication of the potential absorptive capacity for innovation.

	2009	2014	Percentage Change
Barking & Dagenham	0.26	0.45	72%
Bexley	0.47	0.52	12%
Greenwich	1.01	1.60	58%
Hackney	7.03	9.46	34%
Haringey	1.53	2.77	82%
Havering	0.39	0.91	137%
Lewisham	1.34	1.67	24%
Newham	0.58	0.20	-66%
Redbridge	0.25	0.98	301%
Tower Hamlets	1.34	1.64	22%
Waltham Forest	1.21	1.27	5%
East London Total	1.15	2.11	84%

Figure 2 Location Quotients for design businesses in East London

Strengths of the fashion sector in East London and the Upper Lea Valley

High growth sector: GVA from fashion in this sub-region grew by 57% (including inflation) between 2010 and 2015, against 29% for the sector in London as a whole.

Scale – There are 36,200 people in full-time employment in East London fashion in 12,000 businesses – an increase of 10,900 jobs and 1,800 companies between 2010 and 2015.

Resilience: Fashion in East London 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 products

Image – Hackney Fashion Hub has helped stimulate awareness of the fashion sector in East London amongst international consumers through its mix of global brands (Burberry, Nike) and independent designers.

East London is growing in importance as a location for design businesses – analysis of location quotients (LQ) for design reveal that East London as a whole has an LQ of 2.11 – more than double the expected number (where 1 represents the national average density of designers in the working population). Five East London boroughs combine high design LQs and high growth: Hackney, Haringey, Lewisham, Tower Hamlets and Greenwich. In all five, we observe increased employment in other fashion production and distribution sectors. Newham, whose growth is driven by fashion retail, is a clear outlier.

Competitive advantage – London has the highest concentration of high value 'convergent media' businesses (with the greatest 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, 'Internet of Things', publishing, creative services, digital manufacturing, robotics, and music.



Existing strategic interventions

Recent developments in both private and public sectors have contributed to organic growth of the sector in East London. The SPV will harness existing and planned initiatives to further accelerate these trends.

Private sector investment

- Design, making and retail in the Stitch Academy at Hackney Walk.
- Development of fashion tech by social enterprise workspace provider The Trampery in London Fields (now closed but this initiative will be carried through in new premises at Neptune Wharf on Hackney Wick, currently under construction).
- Manufacturing and garment technology skills at the Fashion Technology Academy at Fashion Enter in Haringey.
- Plexal, an accelerator for fashion and Internet of Things start-ups, established by the founders of successful fintech incubator Level 39, will open at Here East in June 2017.

GLA intervention to date

- Specialist manufacturing facilities at Building Bloqs in Enfield.
- Support for specialist manufacturing technology eg, Albion Knit in Haringey.
- London Borough of Hackney and GLA have committed funds for the creation of new spaces for fashion retail and enterprise at Hackney Walk.
- Fashioning Poplar, a project initiated by Poplar HARCA, LCF and The Trampery to convert disused garages into
 manufacturing space, studios, and training space for use by students, designers and ex- offenders to promote
 opportunities for local residents to develop craft and business skills and create new fashion enterprises, will launch in
 Autumn 2017.

East London Fashion Cluster action plan

The action plan combines measures to address structural barriers to growth and coordination failures within East London's fashion sector with steps to increase knowledge exchange between fashion businesses, investors and other technology, creative and business service sectors. These will harness London's capacity as the UK's knowledge and technology capital to its global reputation for excellence in fashion design and creativity.

- I. An SPV, the East London Fashion Cluster (ELFC), The SPV will be a separate entity with an industry-led board, representing businesses from every sub-sector of UK fashion. supported by an industry-led board of advocates, will be responsible for coordinating information flows and steering a programme of sector specialist interventions tailored to meet the needs of fashion businesses. . ELFC start-up activity will include further consultation on proposed interventions to:
- II. Integrate a fashion skills framework within the Skills for Londoners strategy, tackling key skills gaps and shortages and supporting increasing diversity of the sector to address changing market opportunities; improving the perception of opportunities within production
- III. Increase the supply of affordable workspace in cooperation with public sector, private sector developers and community-
- IV. Provide specialist equity funding to link investors with designers and tech entrepreneurs
- V. Establish a fashion tech hub at the heart of the new East London fashion quarter

Proposed interventions

I. East London Fashion Cluster

Lead Partner: University of the Arts London

Wider Partners: BFC, UKFT, Greater London Authority, Fashioning Poplar, LLDC, London Boroughs

The SPV will be a separate entity with an industry-led board, representing businesses from every sub-sector of UK fashion. In its first year, ELFC will work in partnership with industry, education and local authorities to deliver:

- Consultation on the feasibility of ELFC and areas of focus
- Development of 10-year business plan for ELFC beyond the consultation phase
- Development of a physical hub for ELFC in East London
- Launch of online community
- Launch of programme of events, hacks, webinars
- Formal launch of the Cluster, 10-year plan and short-term priorities that have emerged from the consultation.

The vision and mission for the SPV are expressed on the back cover of this document.

II. Fashion Skills for Londoners Framework

Lead Partner: Greater London Authority (interim); UKFT

Wider Partners: UAL, LLDC and BFC

ELFC will pilot the development in East London of a Skills Framework identifying key skills and training gaps (Levels 1-4) across the fashion sector pipeline, from craft and technical skills through executive and management capabilities. This will include:

- An assessment of skills demand both for shortages (pipeline) and gaps (in current workforce) across fashion manufacturing – including craft, technical and digital skills related to fashion manufacture, design and garment technology would be used to identify where additional qualifications, courses, modules and training are required.
- Appraisal of existing skills provision (careers guidance, courses, modules, facilities, continuing professional development and providers).
- Business support and mentoring in management skills such as cashflow projection, product costing and buying, and support for industry compliance, with a related work stream of training and funding (in the form of loans) to existing and start up manufacturers to enable compliance with ethical production standards (Fast Forward / SMETA Audits).
 - Inform Creative Industry Skills section of the Mayor's 'Skills for Londoners Strategy' being developed throughout 2017- a city-wide strategic approach to ensuring all Londoners and London businesses can access the skills they need to succeed.
 - Explore potential to expand delivery across London through existing relationships with FE providers in other parts of the capital.

II. Fashion Workspace Alliance

Lead partners: London Legacy Development Corporation, Poplar HARCA, BFC: Fashion Spaces **Wider partners:** GLA, CED institutions and stakeholders, local boroughs, landowners, developers, workspace providers & fashion industry experts and corporates

A brokerage 'service' to connect local authorities, developers and fashion businesses to a range of workspace in East London. The 'coordination' service would consist of:

- A light-touch digital tool/platform for coordinating pipeline of demand and matching those seeking space with those who have it (developers, boroughs) or want to broker it.
- A policy toolkit for local authorities to enable a rapid response both to threats of displacement of existing commercial premises and opportunities for new capital funding, including model Section 106 agreements and templates.
- Signposting co-investment funding opportunities for public-private development

UTCOMES

- Clearer pipeline linking demand with supply, robust stock of appropriate, new, and refurbished workspace on long tenures to ensure predictable supply of workspace for fashion businesses.
- Ongoing cross-borough exchange of knowledge and practice.

IV. London Fashion Fund

LONDON FASHION FUND

Lead Partner: University of the Arts London

UAL's planned equity fund aims to link investors with designers and tech entrepreneurs. It will support fashion business locally, regionally and nationally at all stages of their development; it will help conceive, incorporate and accelerate businesses. A focus of the fund will be to develop fashion entrepreneurship with an environmental and social conscience. It is expected that a significant proportion of the businesses supported by the LFF will be members of the East London Fashion Cluster.

V. Fashion Tech R&D Showcase

Lead Partner: University of the Arts London

Wider partners: GLA, UKFT, CED institutions and stakeholders

- At the physical epicentre of the East London Fashion Cluster will sit a showcasing space (or series of spaces, up to 7,500m²) shared between the institutions within the CED.
- The Fashion Tech R&D Showcase will build upon and create a new intensity of collaborative relationships across disciplines, institutions, and sectors around the research and development of new materials, products and platforms.
- The facility will contain the most advanced equipment for digital fabrication and printing, as well as wet and dry labs for the exploration and development of new sustainable materials and wearable technologies.
- It will act as both a research laboratory and a showcase for emerging products and materials, providing a knowledge centre to facilitate links and exchange with wider UK fashion industry hubs.

OUTCOMES

- Delivers on the original vision and ambition for the cluster to facilitate cross-institutional and cross-sectoral collaboration and collaborative learning.
- Accessible facilities to encourage partnership between designers, engineers, technologists and investors, leading to new product and IP development, such as wearable tech, fabric innovation and AR/VR applications for showcasing and retail.

Vision

The vision of East London Fashion Cluster is to accelerate fashion technology businesses in the context of a twenty-first century innovation quarter where fashion, technology, education and business meet, building on the foundations of organic growth.

Mission

East London Fashion Clusters purpose will be to drive the development of the innovation quarter to establish London as the world's leading fashion tech city. In the first instance, its focus will be on networking, signposting, coordination and the delivery of member benefits, as well as advocacy and policy shaping. Over time, other functions will include promotion and thought leadership and the development of targeted programmes that can provide businesses with the support that they need at different stages of their growth.











BRITISH FASHION COUNCIL