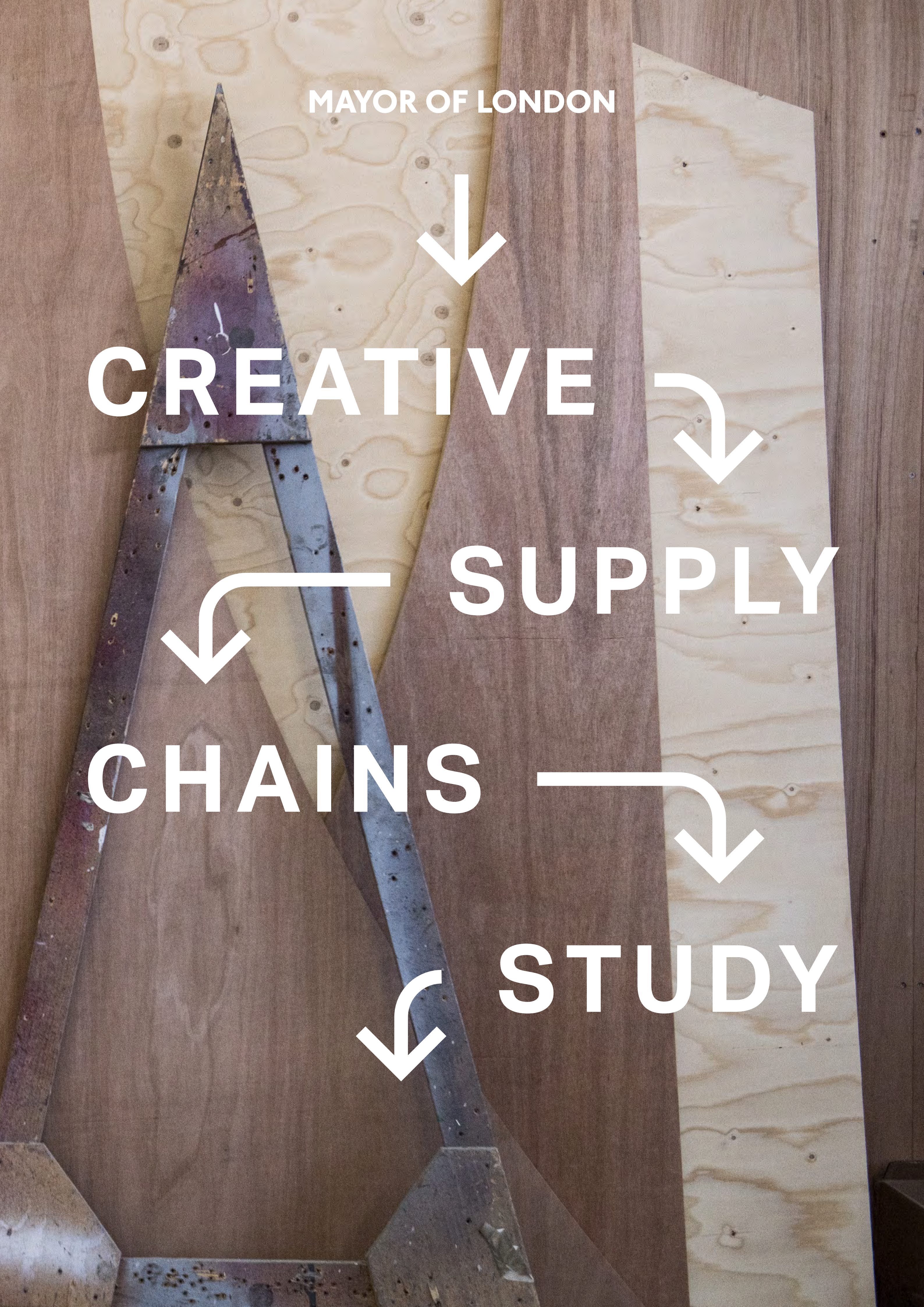
MAYOR OF LONDON

CREATIVE SUPPLY CHAINS STUDY



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Many thanks to those businesses who gave the time to contribute to this study.

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Kerry Harrison (National Theatre)

SUMMARY OF FINDINGS

This research has been carried out as part of the Mayor's Cultural Infrastructure Plan. It provides supportive evidence about the important role that creative production businesses play through their wider supply chain, both within London and across the UK.

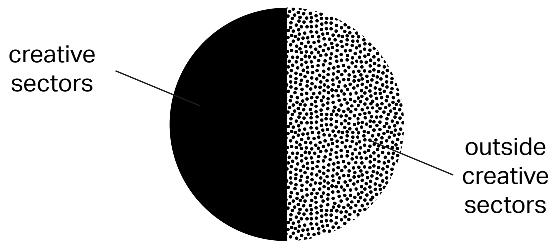
What is a creative supply chain?
A creative supply chain is the set of goods and services that support, at various stages, creative consumption and / or production. The creative industries rely on a mix of different kinds of businesses for goods, services and skills.

Why is it important to understand the impacts of creative supply chains?
Through investigating creative supply chains, this study provides evidence of the wide-ranging impact of the creative industries, particularly London-based cultural infrastructure. This study demonstrates how economic value generated in London's creative industries is linked to further activity in other parts of the economy, both within London and at a UK level. It also looks beyond just the economic impact, and includes the skills, geographic and premises conditions that make supply chains successful.

Supporting the generation of economic value in the creative industries therefore supports jobs and outputs in other parts of the economy. The findings reinforce the case to provide space and support for the creative industries which aids the delivery of the UK Industrial Strategy: enhancing national production capacity and helping to reinforce London's position as a global leader in the creative and cultural industries.

ECONOMIC IMPACT

The creative industries have a wide impact on the economy and support activity in a range of supply chain sectors.

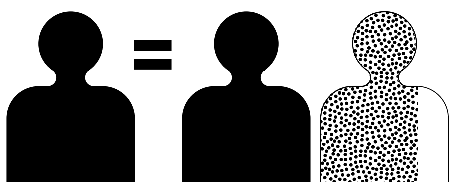


In 2017, the creative industries contributed £101.5bn GVA to the UK economy, of which £52.2bn of economic output was generated in London.

This study finds that creative industries in London spend an estimated £40bn within the supply chain. About 50 per cent of this expenditure falls outside the creative sectors.

JOBS AND SKILLS

Large numbers of jobs are supported through creative supply chains. This work is varied and highly skilled.

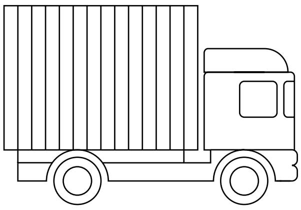


For every job within the creative industries in London, there is an additional 0.75 jobs supported within the creative supply chain.

Because the creative industries are supported by such a varied range of businesses and sectors, there are also many types of skilled jobs provided within the creative supply chain.

VALUE BEYOND THE CREATIVE SECTOR

Creative supply chains consist of a wide range of activity across many different economic sectors within, and outside the creative industries. This activity can be highly specialised.

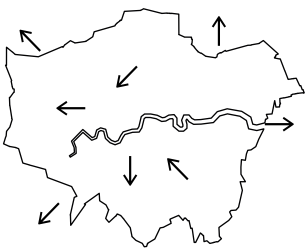


The contribution of non-creative sectors is key to creative production. For example, 92 per cent of supply chain spending to produce a single catwalk fashion show set falls outside the creative sector.

There is an important subset of highly specialist businesses in the supply chain that are outside the defined creative sectors but almost only work for creative businesses. These include manufacturers of dance flooring; specialist paint wholesalers for theatre; security services specialising in music and film events.

GEOGRAPHY

Through their supply chains, London-based creative businesses benefit other businesses, both within and outside London.

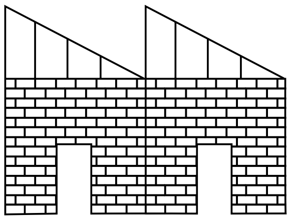


Creative supply chain businesses are strongly concentrated in London. Being in London is key to accessing clients and staff. It also allows for regular and immediate servicing needs so that work can be done 'on-site'.

It is not a zero-sum game though. London-based cultural infrastructure is also good for businesses in other parts of the UK. The average share of suppliers located outside of London across all case studies is 40 per cent.

EMPLOYMENT SPACE

Creative supply chain activity happens in a range of workspaces across both central and outer London, including studio spaces and industrial units.



There is more pressure on industrial premises in London, where much of the city's creative production happens. Between 2010 and 2015, industrial land in London fell by over 500 hectares at an annual rate of 106 hectares per annum.

Workspace requirements directly reflect business activity. Accessing adequate workspaces directly impacts production and employment capacity in the creative supply chain.

Kerry Harrison (National Theatre)

WHAT IS A CREATIVE SUPPLY CHAIN?

INTRODUCTION

A creative supply chain is the set of goods and services that support, at various stages, creative consumption and / or production.

This study looks at the supply chain of London's cultural infrastructure. Cultural infrastructure is the buildings, structures and places where culture is

- **consumed;** places where culture is experienced, participated in, showcased, exhibited or sold. For example, museums, galleries, theatres, cinemas, libraries and historic cultural sites

or

- **produced;** places of creative production, where creative work is made, usually by artists, performers, makers, manufacturers or digital processes. For example creative workspaces, performing arts rehearsal spaces, music recording studios, film and television studios and industrial and light industrial units used by creative and cultural businesses.

Some infrastructure encompasses both.

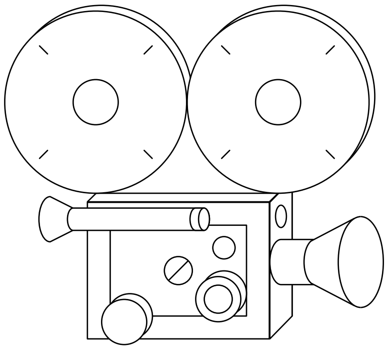
These places do not operate in isolation. Their daily activities rely on a supply of goods, services and skills provided by the wider economy. Examples include: manufacturing of products of wood, manufacturing of fabricated metal products, specialised construction activities, wholesale of textiles, and logistics and distribution of supplies for. All these businesses also have their own set of suppliers.

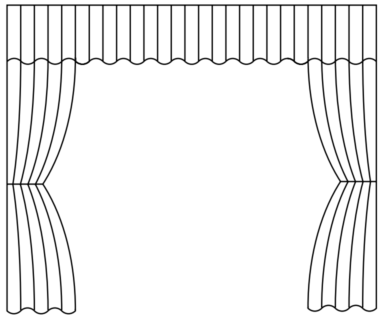
The National Theatre demonstrates the complexity of these relationships as both a producer and consumer – it houses a substantial fabrication and manufacturing wing, as well as being supported by a network of over 200 businesses over the course of a year. These include security services providers, drinks wholesalers, timber merchants, and specialised chandlers. All these businesses also have their own set of suppliers. **For instance, when needed the National Theatre has contracted Souvenir Scenic Studios, a set manufacturing company, which itself uses materials, equipment and specialised services from over 30 businesses across the UK.**

While direct jobs and Gross Value Added (GVA) are the primary indicators of a sector's contribution to the local economy, analysing these networks provides a fuller understanding of its role in the wider economy and in local communities and places.

This report shows that London's cultural infrastructure supports a range of activity and jobs along the creative supply chain, both within and outside London.

What is a creative supply chain?'





PRODUCTION

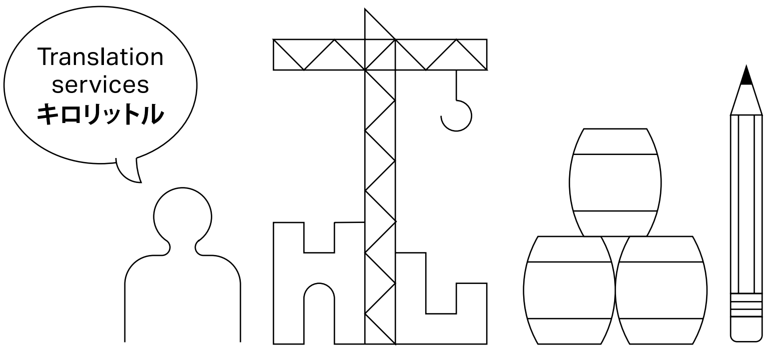
Places of creative production, where creative work is made, usually by artists, performers, makers, manufacturers or digital processes.

CONSUMPTION

Places where culture is experienced, participated in, showcased, exhibited or sold.

WIDER ECONOMY

Businesses provide goods, services and skills to production and consumption activities.



SCOPE AND DEFINITIONS

This report is a based on a mixed-methods research, drawing quantitative and qualitative evidence from:

Eight detailed case studies of London-based organisations and businesses
The case studies cover places of both creative consumption and production in London. They are drawn from a range of creative sectors. These include art and design, dance, fashion, film, music and theatre. This study has mapped and analysed the entire supply chain networks of each case study, collecting information on activity, jobs, location and workspace needs.

The economic analysis of supply chain sectors using an input-output model
Input-output (IO) analysis is a structure to understand the relationships that exist between different sectors of the economy. Input-output tables have been used to analyse the economic value of the top supply chain sectors to all creative industries in the UK. These tables have also been used to measure the economic impact of each individual case study's network of supply.

The methodological principles used to estimate supply chain impacts for the London creative industries are included in the appendix.

Literature review of the impact of the creative industries on the UK economy
The research team have reviewed studies and data from the Department of Digital, Culture, Media and Sport, Nesta, Creative England, The Centre for Economic and Business Research, BOP Consulting and GLA Economics. This has provided further evidence on the economic and employment impact the creative industries have on the rest of the UK economy.

Definition of creative industries and supply chain sectors
The analysis presented in this report uses the Department of Digital, Culture, Media and Sport (DCMS) definition of the creative industries, which includes the following sectors:

- Advertising and marketing
- Architecture
- Crafts
- Design: product, graphic and fashion design
- Film, TV, video, radio and photography
- IT, software and computer services
- Publishing
- Museums, galleries and libraries
- Music, performing and visual arts

All sectors have supply chains which can be assessed for their economic footprint.

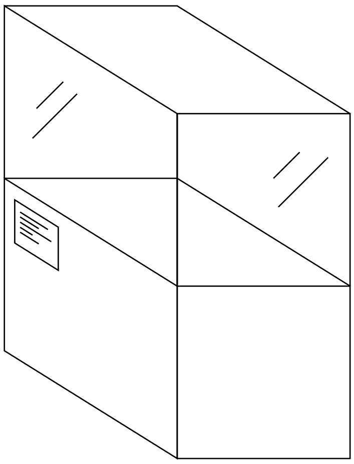
Importantly, this report looks into the range of activity, both within and outside the creative industries, that forms the creative supply chain. As such, this report also identifies a 'wider creative' sector (DCMS+). This sector is made up of specific businesses that operate outside the creative sectors (DCMS) but are both a) highly specialised and / or b) almost only service creative sector clients. This report is consistent with other studies that have used this wider definition to understand the creative industries and the sectors that service them.[1]

1. This 'wider creative' sector approach has been used in studies of the Thames Estuary Production Corridor; studies of creative activity in the context of Creative Enterprise Zone bids and many others, to identify a specific subset of supplying sectors to the creative industries.

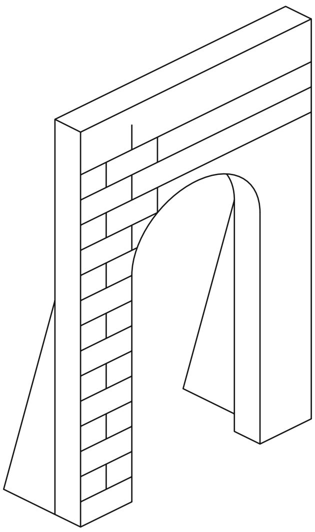
Philip Vile (Sadler's Wells)

CASE STUDIES

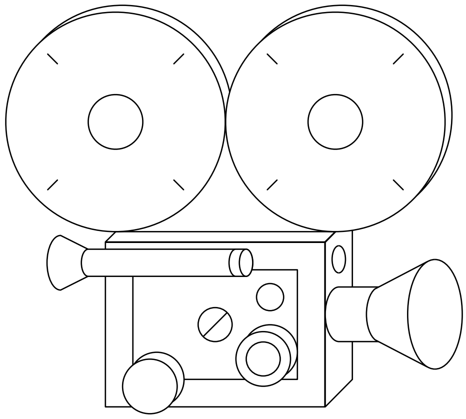
1. Factory Settings
Factory Settings is a design, fabrication and installation studio for the arts, culture and heritage sectors. Clients include London-based cultural organisations like the Barbican, V&A and British Museum.



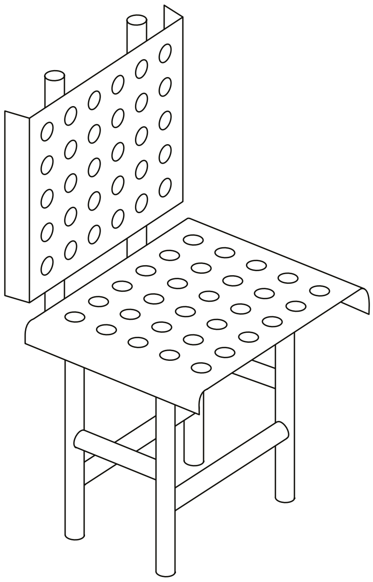
2. Souvenir Scenic Studios
Souvenir Scenic Studios is a manufacturing company of theatrical scenery, and props. It mostly services the theatre and fashion sectors. Clients include Sadler's Wells, National Theatre, Alexander McQueen and Stella McCartney.



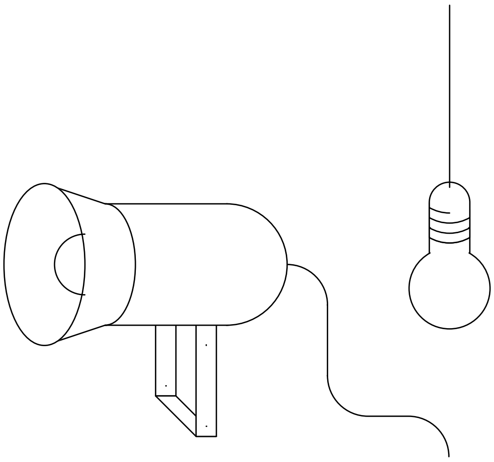
3. Mesmer
Mesmer is a technical consultancy and design agency which creates visuals and projections for live events. Recent work has been seen in Scotland, Paris, New York and Tokyo.



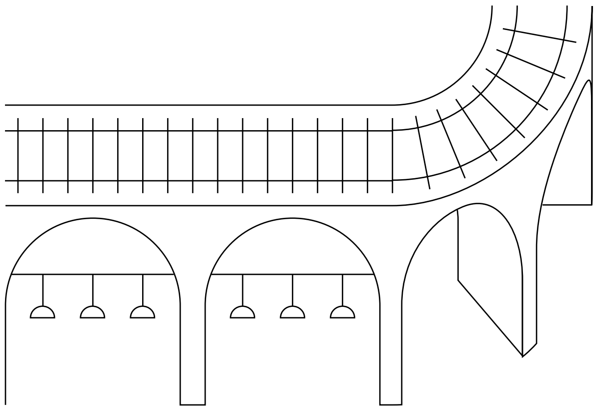
4. Martino Gamper Studio
Martino Gamper is an artist working across a variety of projects from furniture design, to exhibition design, to publishing. He shares his Hackney studio with other artists and designers.



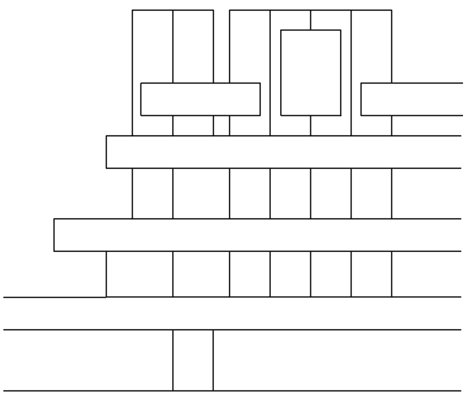
5. Studio ZNA
Studio ZNA is a lighting design consultancy for architecture, galleries, theatre and retail. It supplies several cultural institutions in London including National Portrait Gallery and Somerset House.



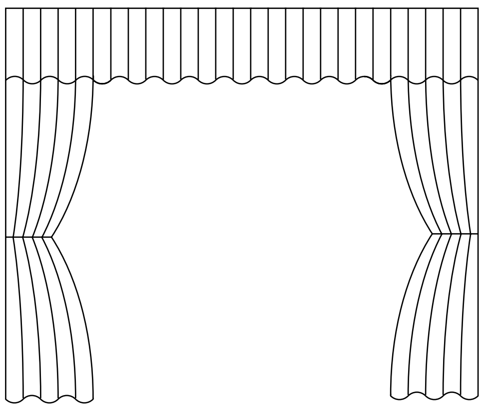
7. Omeara
Omeara is a live music venue, a nightclub and a bar dedicated to showcasing new talent. It is based in three large-scale railway arches along Omeara Street in Southwark. It hosts four to five live music nights a week and can host 320 people.



6. National Theatre
The National Theatre is one of the UK's largest producing theatre companies. Based on London's South Bank, it creates and presents new plays, musicals, re-imagined classics and work for young audiences. In 2017-2018, there were 10 shows on tour in 36 towns and cities across the UK. This is in addition to the 1,300 performances presented on site.



8. Sadler's Wells
Sadler's Wells is a world-famous venue for international dance in Clerkenwell. In 2017-2018, Sadler's Wells commissioned or produced 16 new dance works including productions by five of its Associate Artists. In 2017-2018 it reached audiences of 529,700 in London. It is now growing and expanding with a new site on the East Bank.



CASE STUDY LOCATIONS

Production case studies

① Factory Settings
② Souvenir Scenic Studios
③ Mesmer
④ Martino Gamper Studio
⑤ Studio ZNA

Consumption case studies

❻ National Theatre
❼ Omeara
❽ Sadler's Wells

Philipp Ebeling

1. ECONOMIC IMPACT

ECONOMIC IMPACT

The creative industries are a key contributor to London and the UK's economy. In 2017, the creative industries contributed £101.5bn to the UK economy, of which £52.2bn was generated in London.[3]

This study finds that creative industries in London spend an estimated £40bn within the creative supply chain.[4] About 50 per cent of this falls outside the creative industries. It also finds that in the UK, for all creative industries, the estimated total supply chain spend is £127bn.[5]

Measuring the supply chain
Measuring the impacts of the creative industries across the supply chain helps understand the linkages and interactions between the creative industries and the rest of the economy, both in London and at a UK level.

The creative industries' wider economic impact is measured by looking at:

- the direct impact on the first 'ring' of the supply chain. For example, when a fashion designer purchases fabric for one of their designs, it generates activity for the textile manufacturer who provides it
- the indirect impact on the following 'rings' of the supply chain. To produce the textile needed by the fashion designer, the textile manufacturer purchases cloth, thread and dye. It supports the activity of each of these suppliers.

This means that for every £1 spent in the creative industries, an additional amount is spent in the wider economy through the supply chain. For instance, other studies have found that for £1 of gross value added generated by the arts and culture industry, a further £1.30 of gross value added is generated in the wider economy.[6] Economic value generated in the creative industries therefore supports jobs and output in other parts of the economy.

Top supply chain sectors across the UK
The top ten supply chain sectors, by value, to all the creative industries in the UK include:[7]

- Education services (10 per cent)
- Architectural and engineering services (7 per cent)
- Services of head offices (6 per cent)
- Computer programming, consultancy and related services (5 per cent)
- Employment services (5 per cent)
- Office administrative, office support and other business support services (4 per cent)
- Financial services (4 per cent)

3. DCMS Sectors Economic Estimates 2017 (provisional) : Regional Gross Value Added (GVA)

4. This number captures what is spent by London-based companies, on London-based suppliers. It is calculated based on an input-output analysis of intra-regional intermediate consumption of the London creative industries, focusing on a best fit analysis of the input-output data to the creative industries. For this reason, it should be seen as an indicative order of magnitude rather than an exact estimate.

5. This number captures what is spent by UK-based companies, on UK-based suppliers.

6. Centre for Economics and Business Research report for Arts Council England (2017) Contribution of arts and culture industry to the UK economy. The definition of Arts and Culture used includes theatre, dance, literature, visual arts, music and combined arts.

7. Based on Hatch Regeneris' input-output analysis.

- Services to buildings and landscape (3 per cent)
- Motion picture, video and television programme production, sound recording, music publishing and broadcasting activities (3 per cent)
- Public administration services (3 per cent)

These sectors represent 51 per cent of total annual creative supply chain spend, and a total spend of £65bn. They give an idea of the nature and scale of the relationship between the creative industries and the wider UK economy. From these sectors, we learn that:
The creative industries purchase from other parts of the creative industries. For example, motion picture, video and television programme production, sound recording, music publishing and broadcasting activities represent 3 per cent of total supply chain spending across the UK.

Of these top 10 sectors that supply to the creative industries nationally, 7 are more strongly located in London than in the rest of the UK. This suggests that there is a tendency for the creative industries to source goods and services in London.

Activities linked to infrastructure are important; Architectural and engineering services and services to buildings and landscape together account for 10 per cent of total supply chain spending across the UK.

The value of a single supply chain network
Looking at the supply chain of one organisation shows just how much economic activity is supported by each part of London's cultural infrastructure.

This matters because Culture and Production Services - businesses defined as those which provide production services to creative sectors - are 6 per cent of businesses in London according to recent research by the GLA. They are also growing. There has been 41 per cent employment growth in the Culture and Production Services sector since 2010, which is substantially greater than the London average of +14 per cent.

CASE STUDY

Wider economic impact:

National Theatre
As an organisation that produces and hosts creative work, the National Theatre has a wide range of types of suppliers. The National Theatre sources goods and services to support the needs of the premises (e.g. cleaning services, electrical services, etc.), to support its daily operations and hosting of publics (e.g. catering services, food and drink wholesalers, printing services, etc.) and to support its in-house productions (e.g. lighting technicians, set designers, costume-makers, etc.)

This analysis includes what the theatre spends on its suppliers as well as what those suppliers spend on their suppliers. It follows the supply chain from the 'head' all the way to the end of the 'tail'.

200+ businesses supply National Theatre each year.

£43m generated in gross value added along its supply chain.

London, Yorkshire and the Humber
are areas of concentration of the wider economic impact of National Theatre.

Supply chain business:
Business support services

Supply of technology solutions to creative organisations:
- 53 Full time employees
- Services Theatre, Film and television
- 5% of turnover is attributable to creative and cultural sectors clients
- Clients mostly based in London
- Operating from a large office space (>500sqm)

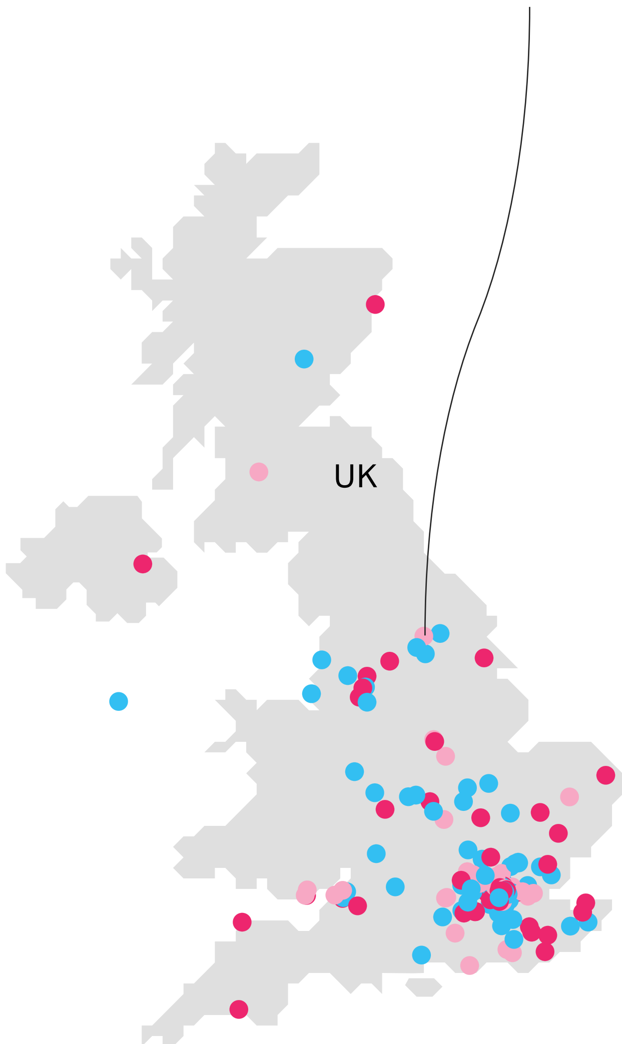


Fig.1.1
Supply chain spend within and outside of the creative industries (as defined by DCMS)

Size of circles on London map (on the following page) represents size of spend. Details are provided on highlighted companies in the supply chain.

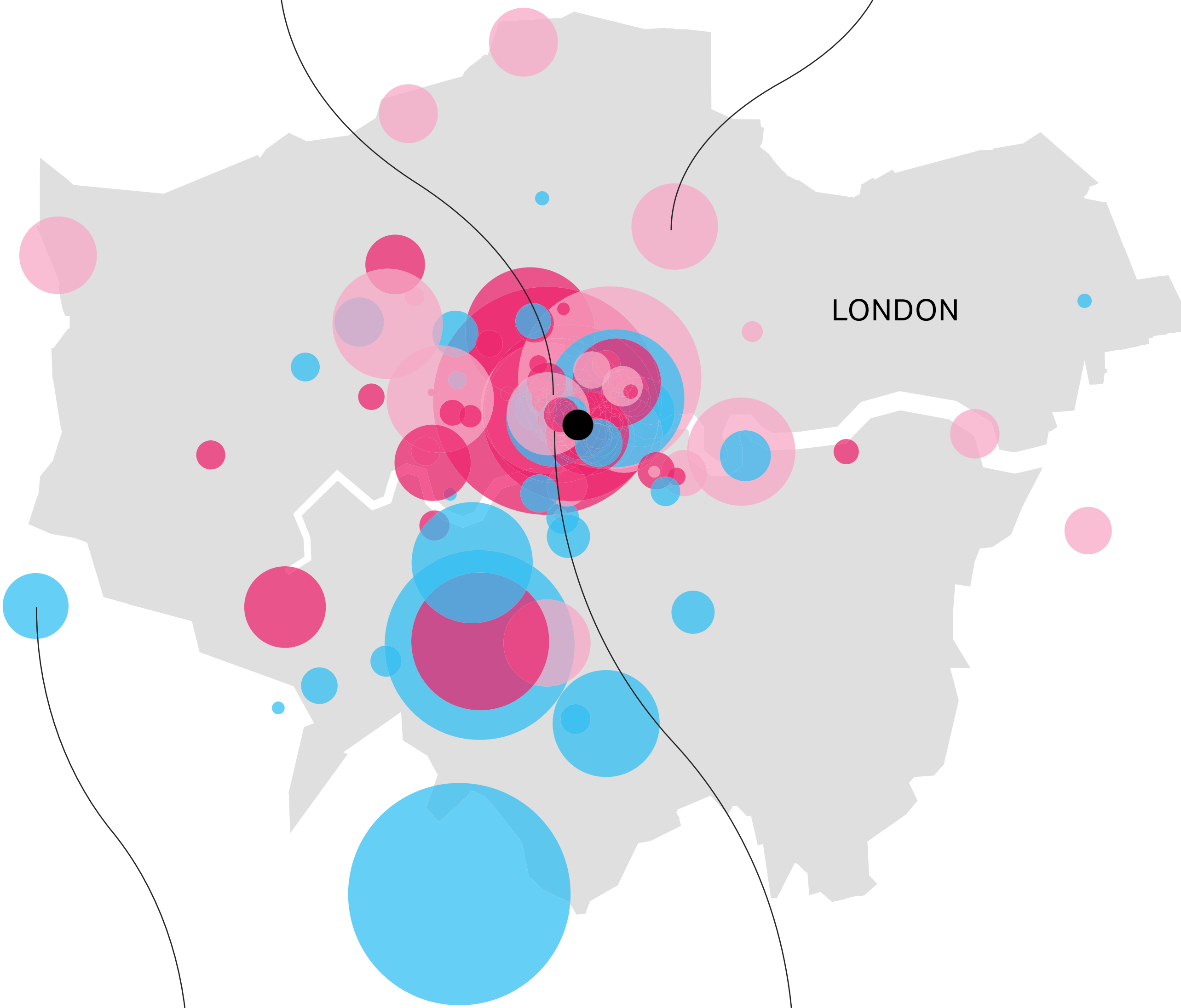
- National Theatre
- Creative industries (DCMS)
- Outside of creative industries but specialised in supplying the creative industries (DCMS+)
- Outside of the creative industries and not a specialist supplier

Supply chain business: Representation

Agents to actors and creatives:
- 7 Full time and 2 freelancers
- Services Art and Design, Music, Fashion, Theatre, Film and Television, Dance
- 100% of turnover attributable to creative and cultural sector clients
- Clients mostly based in London
- Operates from small office space (<500sqm)
- London location extremely important. Agents need to be at the theatres between 1-4 times a week

Supply chain business: Manufactured goods

Flame retardant textile manufacturer:
- 120 Full time and part time employees
- Services Art and Design, Music, Theatre, Film and Television, Dance
- 90% of turnover attributable to creative and cultural sector clients
- Clients mostly based in UK.
- Operating from large industrial space (>500sqm)



Supply chain business: Building maintenance

Fire alarm and security system services:
- 45 Full time employees and 3 part time employees
- Services Music and Theatre
- 2% of turnover attributable to creative and cultural sectors clients
- Operating from small office space (<500sqm)

Supply chain business: Communications

Sponsorship consultant:
- 1 Full time employee
- Services Art and Design, Fashion, Music, Theatre, Film and Television, Dance
- Turnover is split between creative and cultural sector clients and business-sector clients
- Clients mostly based in London
- Operates from a small office space (<500sqm)

2.
JOBS AND SKILLS

JOBS AND SKILLS

There are now over 2 million jobs in the creative industries across the UK, a 28 percent increase since 2011.[8] Employment in the creative industries is growing at 4 times the rate than other areas of the economy.

Beyond the creative industries[9], the overall creative economy currently employs 1 in 6 people in London and 1 in 11 people across the UK.[10] There are 3.12m jobs in the UK creative economy.

Creative industries = A+B

Creative economy = A+B+C

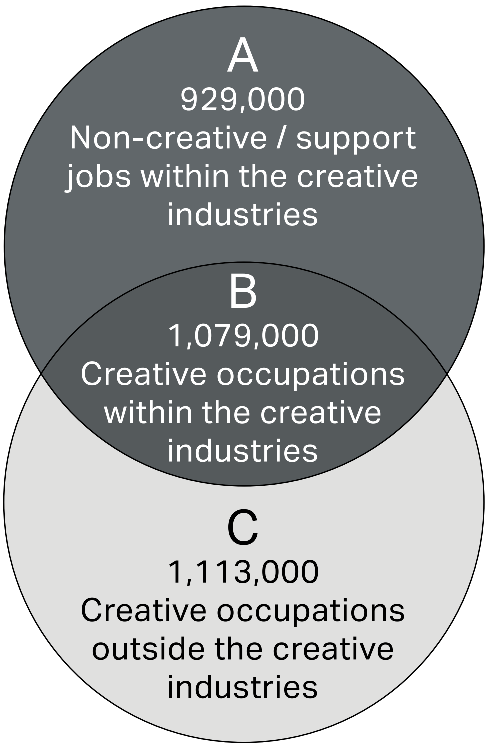


Fig.2.1
Employment in the UK creative economy 2017

Jobs in the creative supply chain
The creative industries have an additional employment impact through the supply chain. The creative economy includes all jobs within the creative industries as well as creative jobs outside the creative industries.[11] In London, for every job within the creative industries there is an additional 0.75 jobs supported within the creative supply chain.[12]

Some 267,500 people work in London's creative industries. These support around 203,200 jobs in creative supply chain employment. In London, more people work within the creative supply chain than in the legal and accounting sectors combined.[13]

Some creative sub-sectors support an especially large amount of supply chain employment. For instance, for every job within the publishing sector in London, a further 0.87 jobs are supported in the supply chain. In this case, factoring in the supply chain nearly doubles the employment impact of the sector.

Sources of jobs
Places where culture is consumed, like theatres and music venues provide many jobs. For example, Sadler's Wells employs over 200 people in various departments supporting its business operations, premises and overall programming. Specific

8. DCMS Sectors Economic Estimates 2017: Employment
9. Creative industries as defined by DCMS
10. GLA Economics (2017) London's creative industries – 2017 update.
11. Nesta (2014) Interactive data visualisations of the UK's creative economy
12. Based on employment data from Business Register and Employment Survey for 2016
13. Ibid

occupations include management and directorial positions, technical jobs in AV production, front-of-house staff, housekeeping and security services. Beyond these facilities, because the creative industries are supported by such a varied range of businesses and sectors, there are also many types of skilled jobs provided within the creative supply chain. These include creative jobs like designers and artists; jobs in hospitality and events management; specialised manufacturing, construction and engineering; transport and logistics.

Access to specialist skills
Freelance workers are key to the creative industries, and the creative supply chain. This is true across both creative production and consumption. For example, over the course of a year, National Theatre employed 1,900 freelance workers on top of its regular workforce of 1,178. These freelancers included artistic staff, like actors, workshop facilitators and writers.

All case study businesses and organisations report relying on skilled freelance workers to complement their workforce. Freelancing allows creative businesses to hire individual with specialist skills and to accommodate shifting scales of creative production.

For many businesses servicing the creative industries, work is project-based. Access to skilled freelance workers allows companies to bring additional people in when there are multiple contracts and / or large-scale contracts happening over a period of time. Access to skilled freelance workers also provides companies the flexibility to meet the needs of their clients.

CASE STUDY

Accommodating the needs of creative sectors:

Mesmer
Mesmer, which produces visuals and projections for live events, has three regular employees. All three are directors and do individual freelance contracts for other companies too. The team includes six further freelancers, including a 3D animator, systems engineer, administrator, technician and programmer.

Each employee can be hired for a specific project that requires their skills. This flexible company structure also accommodates the different ways in which clients from creative sectors work. For example, for large-scale live events or fashion shows, Mesmer is hired out as a company to provide its services. For other contracts such as theatre contracts, employees are hired individually as freelancers.

Businesses in the creative supply chain rely heavily on skilled workers both as in-house staff and as freelancers. Being in London is vital in terms of accessing a pool of skilled workers.

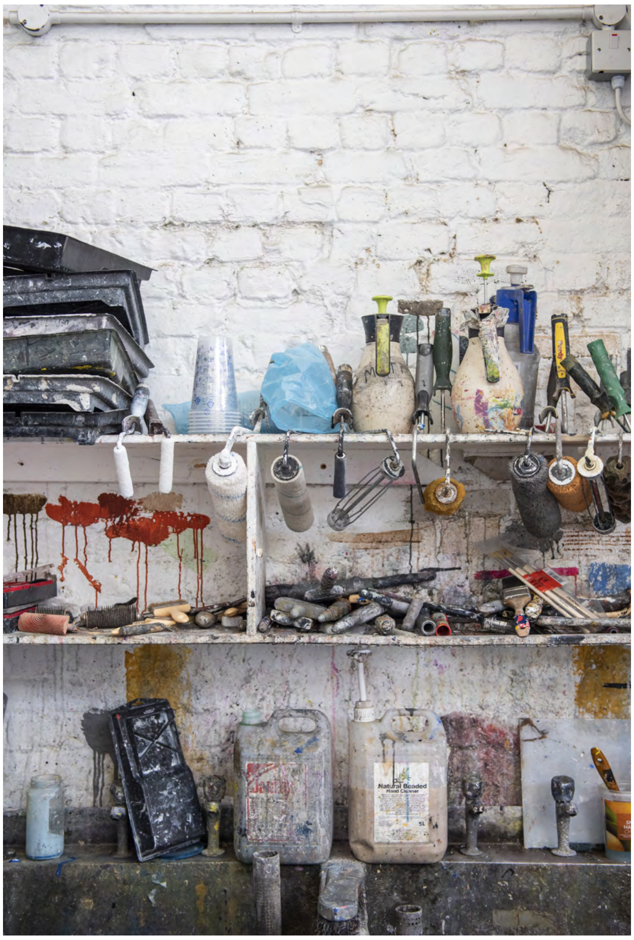
CASE STUDY

Accommodating different scales of production:

Souvenir Scenic Studios
Souvenir Scenic Studio's production volume is always changing. There are an average of 4-5 sets in the making in any given month. Some contracts require 2 weeks of production; larger-scale projects can take up to 3 months.

The studios use a pool of freelancers who can be brought in on specific contracts as needed. These workers complement the company's regular team, which includes administration roles, engineers and draughtsmen and skilled labour such as carpenters, painters, prop makers and metal workers.

Being able to hire freelancers for projects is key to business operations. Freelance workers are a varying, but always significant proportion of Souvenir Scenic Studio's total employees on any given project.



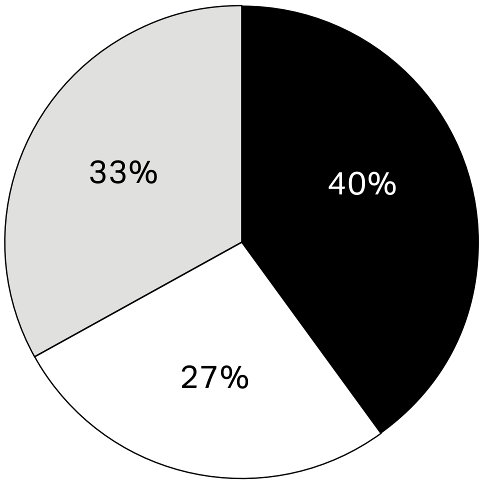


Fig.2.2
Project spend for the production of 1 fashion show set by labour and production costs

- In-house labour
- Freelance
- Goods and services supplied


40X40X1.5
25X25X1.5
M12
M12
M10
M8/M6

3.
VALUE BEYOND THE CREATIVE SECTOR

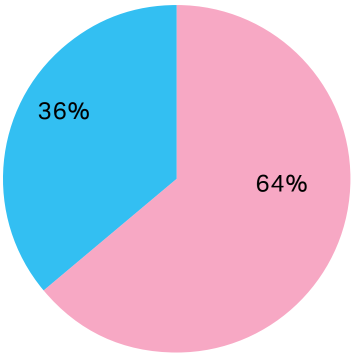
VALUE BEYOND THE CREATIVE SECTOR

The creative industries rely on a mix of different kinds of businesses for goods, services and skills.

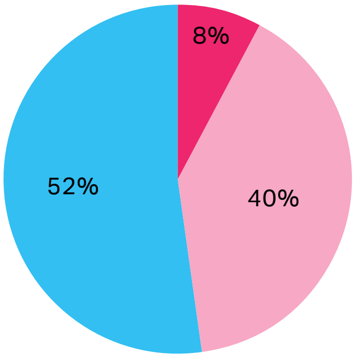
The top ten supply chain sectors, by value, to the UK's creative industries include a broad mix of economic activity. The majority of supply chain spending by all of the UK's creative industries falls outside the creative sector.[14] The variety of activity found within the creative supply chain underlines the linkages between the creative industries and a number of wider sectors of the economy.

Value beyond the creative sector
The graphs show the distribution of supply chain spending for all the case studies of creative consumption facilities and creative production outputs in London in this report.

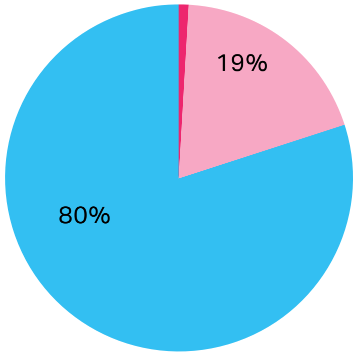
Supply chain spending outside the creative sector is of significant value. Across creative production outputs, an average of 70 per cent of supply chain spend falls outside the creative sector.



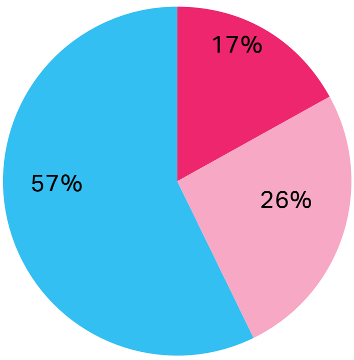
1 artist's exhibition commission



1 fashion show set production



1 museum exhibition installation



1 night at a live music venue

Key

- Creative industries (DCMS)
- Outside of creative industries but specialised in supplying the creative industries (DCMS+)
- Outside of the creative industries and not a specialist supplier

Fig.3.1
Supply chain spend within and outside of the creative industries (as defined by DCMS)

14. Based on Hatch Regeneris' input-ouput analysis.

For example:

- 100 percent of supply chain spending to produce one exhibition falls outside of the creative sector.
- 99 per cent of supply chain spending to produce one museum exhibition installation falls outside the creative sector.
- 92 per cent of supply chain spending to produce one set for a catwalk fashion show is outside the creative sector.
- 83 per cent of supply chain spending supporting one night at a live music venue falls outside the creative sector.

Specialised goods and services in the 'wider creative' sectors
These businesses have developed a set of knowledge and skills that respond to the creative sector's needs. They're understood as part of a 'wider creative' sector (DCMS+) as they provide a large part of the goods and services that support creative production and consumption.

Importantly, there is a subset of specialist businesses that work outside the creative sectors but almost only work **for** creative businesses. Examples of these businesses include freight companies that specialise in artwork transportation; wholesalers that distribute specialist paint and coating products for film, television and theatre; manufacturers of dance flooring; textile printing services for the fashion industry; security services specialising in music and film events, and more.

Across all case studies, 'wider creative' sectors represent an average of 35 per cent of total supply chain spending.

Dependency
Being highly specialised implies a certain level of dependency on the sectors serviced. For example, a set builder specialising in the production of film sets will rely mostly on film-sector contracts to generate revenue. Dependency on specific creative sectors can be found at different stages along the supply chain.

This dependency means that changes in the creative industries impact upon the 'wider creative' sectors, and along the supply chain to other industries altogether. For example, changes in levels of government funding, private or public sector investment in aspects such as education can therefore effect the entire supply chain 'tail'.

CASE STUDY

Using specialised services:

Martino Gamper Studio
In one year, Martino Gamper Studio produces about 24 individual commissioned pieces of art or design and 2 to 3 exhibitions.

The studio's commissioned and exhibition work shows the breadth of sectors supported by individual artistic practices. For example, 85 per cent of supply chain spend to produce one commissioned piece falls within creative sectors. At the same time, 64 per cent of what it costs the studio to produce one exhibition falls in the 'wider creative' sector category. The studio uses specialised manufacturing and craft activities like chair caning and furniture upholstering to produce exhibition pieces.

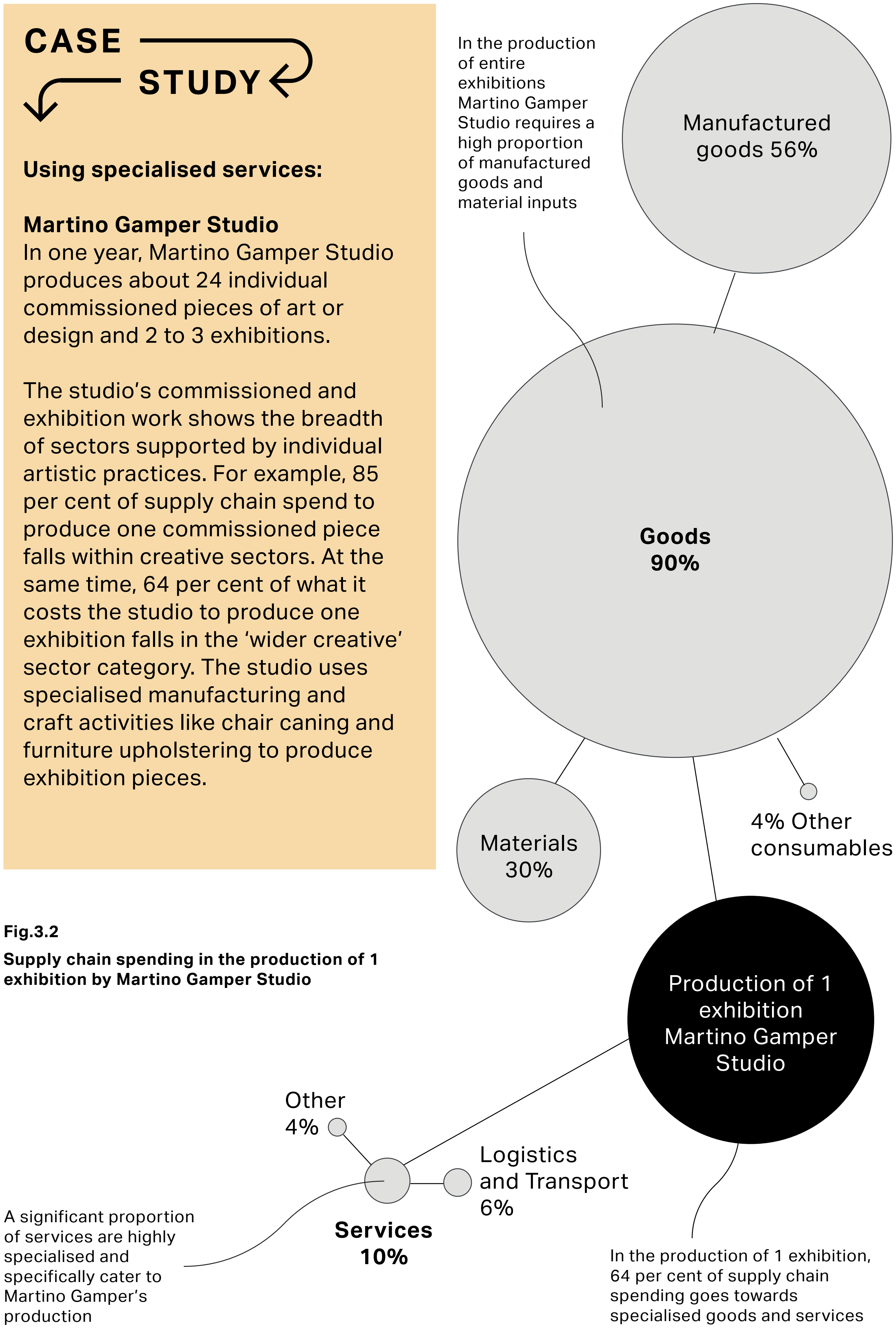


Fig.3.2

Supply chain spending in the production of 1 exhibition by Martino Gamper Studio

CASE STUDY

Dependency on creative sectors along the supply chain:

Souvenir Scenic Studios
Souvenir Scenic Studios' entire annual revenue is generated through creative industries contracts – mostly for the theatre and fashion sectors. To produce one set for a fashion show, Souvenir Scenic Studios buys materials from a theatrical chandler and flame resistant fabric from a manufacturer of scenic fabrics. It also hires the services of a specialised crewing company. All these supply chain businesses report that in one year, over 70 per cent of their revenue comes from creative sector clients.

40 per cent of total supply chain spending for the production of 1 fashion show set goes towards the 'wider creative' sector.

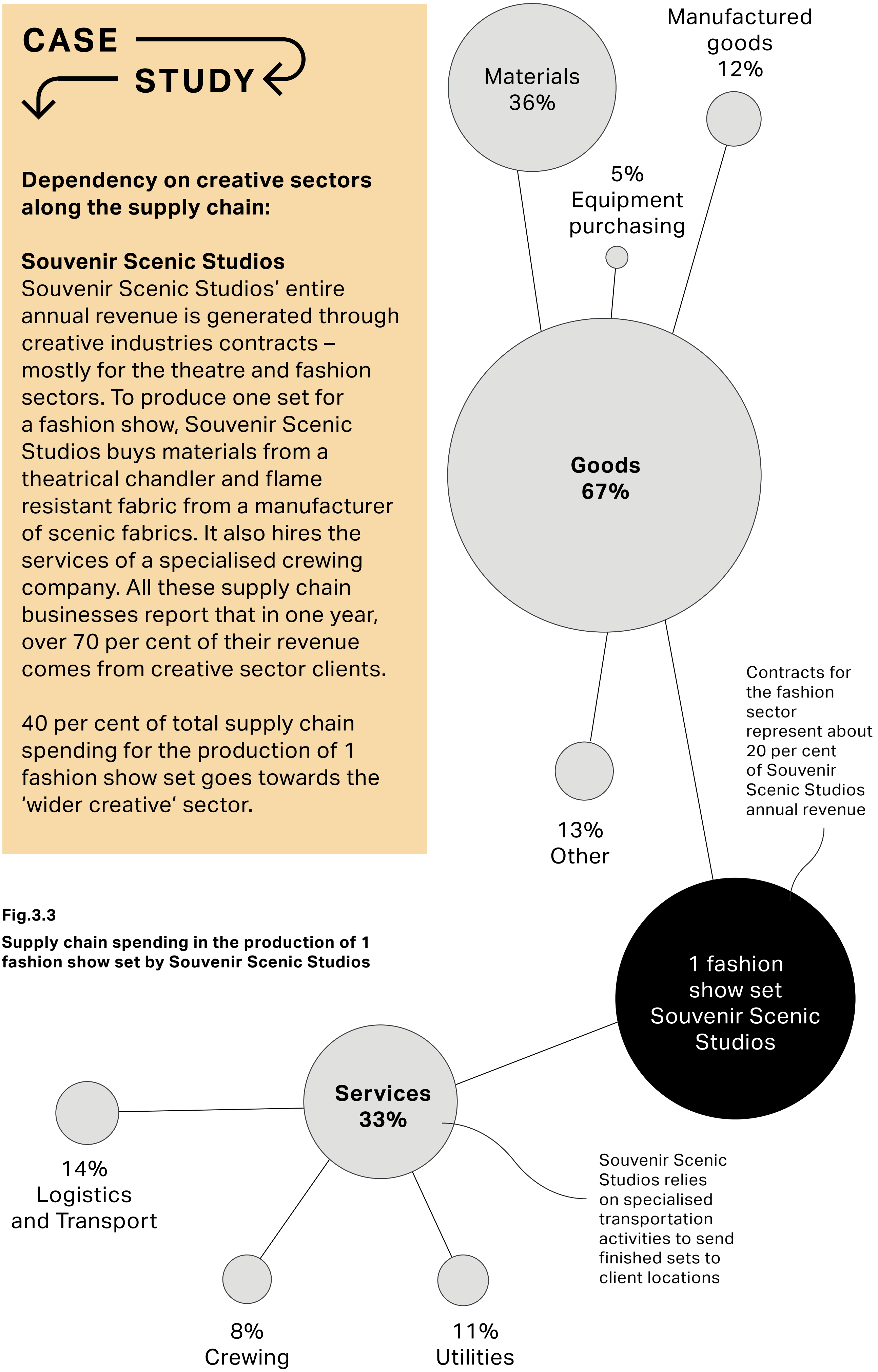


Fig.3.3

Supply chain spending in the production of 1 fashion show set by Souvenir Scenic Studios

CASE STUDY

Value across sectors and dependency within one supply chain network:

Factory Settings
Factory Settings designs and builds exhibition installations for London's museums and galleries. These contracts account for 60 to 70 per cent of the company's annual revenue.

44 businesses supply the goods and services that go into the production of one exhibition installation.

£2.51m estimated gross value added along the entire supply chain over the course of one year of exhibition production.

96 per cent gross value added is generated outside of the creative sectors.

Supply chain business: Manufactured goods

Performance flooring manufacturer:
- 200+ Full time and part time employees
- Services Art and Design, Fashion, Music, Theatre, Film and Television, Dance
- Clients are mostly based in the UK
- Operates from large industrial space (>500sqm)

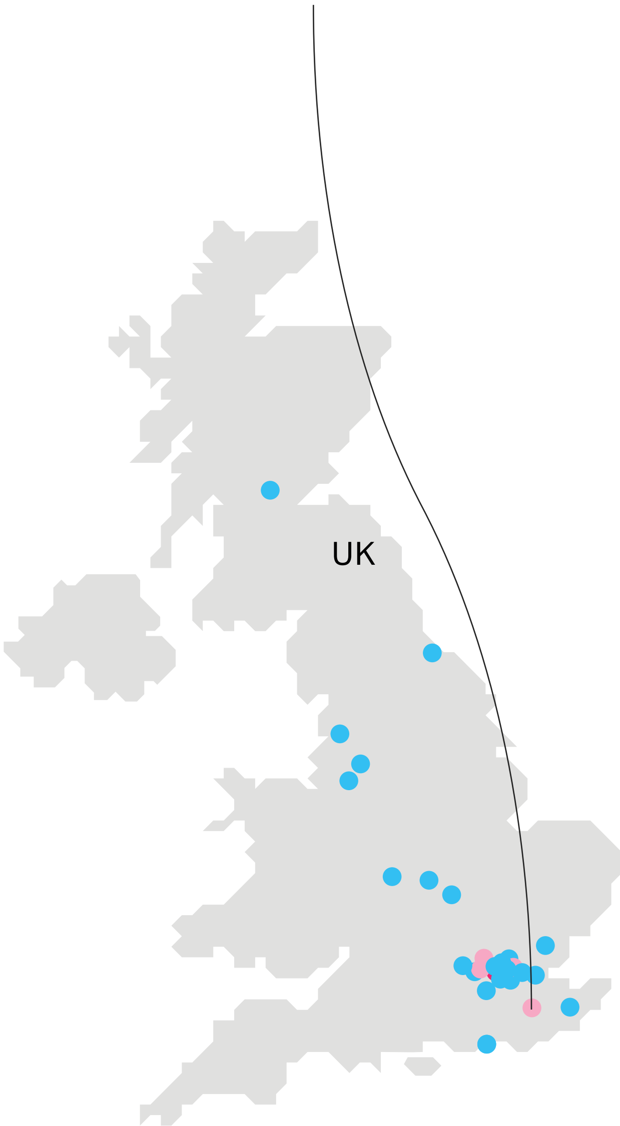


Fig.3.4
Supply chain spend within and outside of the creative industries (as defined by DCMS)

Size of circles on London map (on the following page) represents size of spend. Details are provided on highlighted companies in the supply chain.

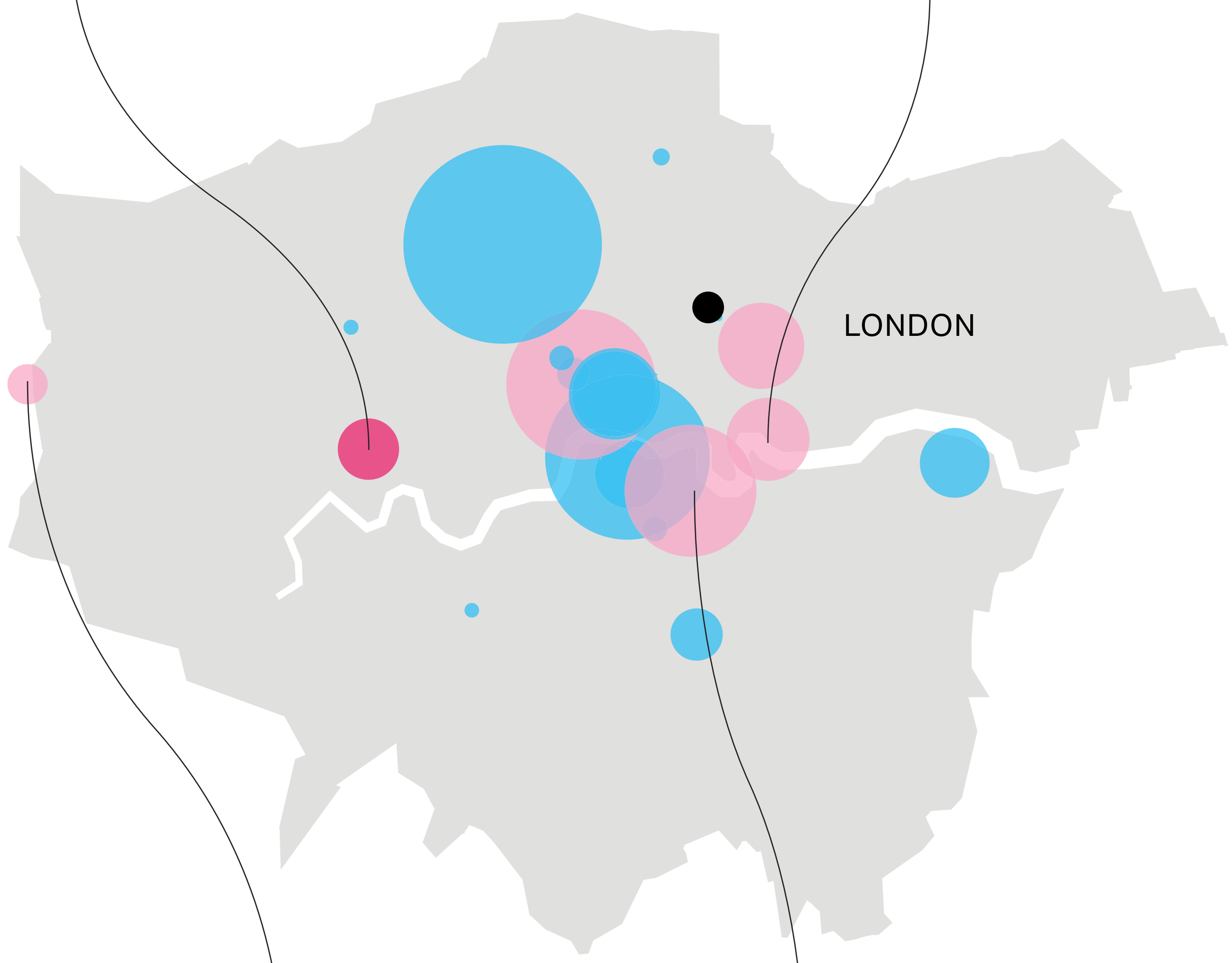
- Exhibition set building business, Factory Settings
- Creative industries (DCMS)
- Outside of creative industries but specialised in supplying the creative industries (DCMS+)
- Outside of the creative industries and not a specialist supplier

Supply chain business: Events management

Events crew services:
- 34 employees
- Services Art and Design, Fashion, Music, Theatre, Film and Television, Dance
- 84% of turnover attributable to creative sector
- Clients are mostly based in the UK
- Operates from large office space (>500sqm)
- London location not critical as they work all over the UK; staff is mobile and not based at London HQ

Supply chain business: Transport and logistics

Freight transportation company:
- 1 Full time employee and various freelance drivers
- Services Art and Design, Fashion, Music, Theatre, Film and Television, Dance
- 100% of turnover is attributable to creative and cultural sector clients
- Clients are mostly based in UK
- Operates from small office space (<500sqm) and Yard / Outdoor space
- London location is critical to accommodate 'last minute' jobs"



Supply chain business: Manufactured goods

Perspex plastic manufacturer:
- Services Art and Design, Fashion, Music, Theatre, Film and Television
- 80% of turnover attributable to creative sector clients
- Clients mostly based in the UK
- Operates from large industrial space (>500sqm), Yard / outdoor space
- London location critical; they are no more than 20 miles from central London and every major Film and TV studio

Supply chain business: Equipment purchasing

Theatre chandler:
- 38 employees
- Services Art and Design, Theatre, Film and Television, Dance
- 98% of turnover attributable to creative sector
- Clients mostly London-based
- Operates from large industrial space (>500sqm) and small office space
- London location is "very important, we need to be close to our core customer base for speedy delivery to West End Theatres and local set builders"

Metal Culture LAB, Southend

4.
GEOGRAPHY

GEOGRAPHY

While supply chain sectors are strongly concentrated in London, the city's creative industries also source goods and services from across the UK.

That means that supporting creative activity in London benefits a range of economic activity and jobs across the UK.

Geography of supply chains in London
The average share of suppliers located in London across all case studies is 60 per cent. For businesses directly supplying the creative industries, being nearby means they can access client locations and meet regular and immediate servicing needs. It also means they can carry out specific work 'on-site'.

Some businesses identified how their brand is based on locality and a wish to support local London manufacturing and partners. A GLA study of Culture and Production Services businesses identified only 8% of responding businesses claimed that being located in Greater London was not vital to their business model. In conversation with Film London, it was suggested that for some businesses working with large-scale film studios such as Pine Wood and Shepperton, a central London location was less important, and that industrial land around the M25 often accommodated business who need to access various studios and filming locations around the city.

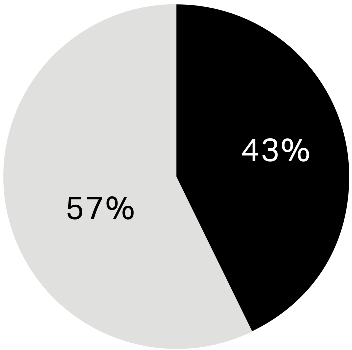
Through their supply chains, London-based creative businesses benefit other businesses, both within and outside London.

CASE STUDY

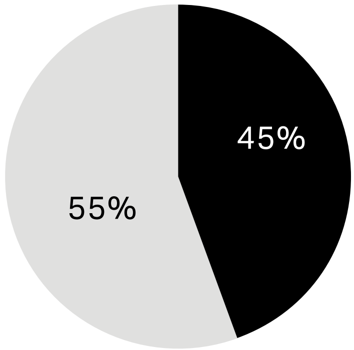
Tapping into London's creative DNA:

Martino Gamper Studio
Martino Gamper's clients are mostly European-based. Fifty per cent of clients are based in Europe, 30 per cent are international (beyond Europe) and 20 per cent are in London. Even though Martino Gamper's work extends outside of London, the studio's Hackney location is hugely important. Martino Gamper describes London as a hub of creative people, offering easy access to skills, knowledge and expertise.

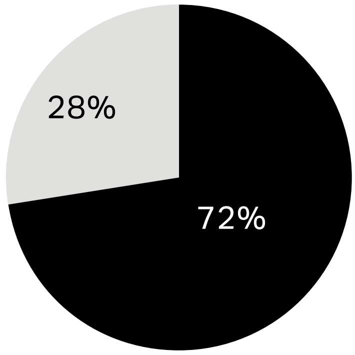
Fig.4.1
Distribution of suppliers inside and outside of London



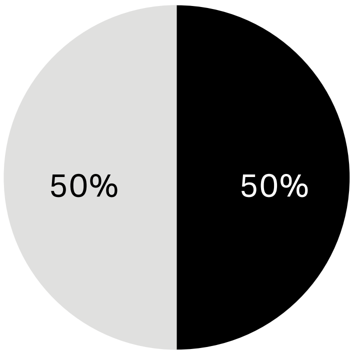
1 theatre's annual supply expenditures



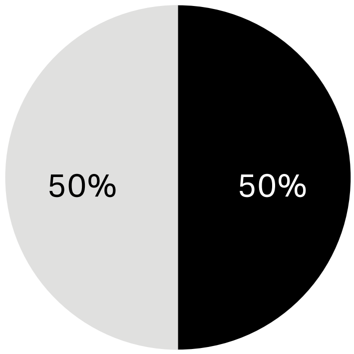
1 artist's commissioned piece



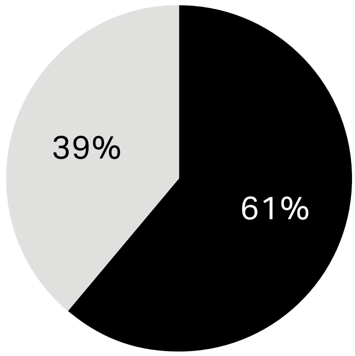
1 fashion show set production



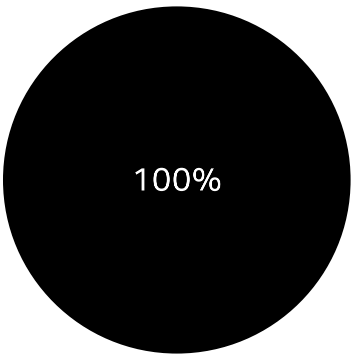
1 lighting designer's annual project spend



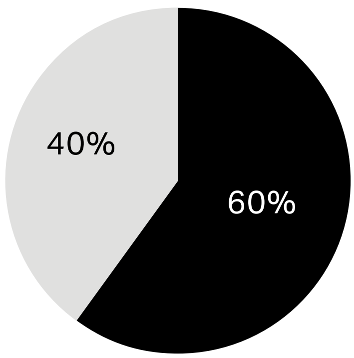
1 artist's exhibition commission



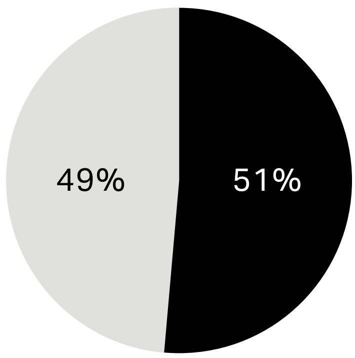
1 theatre set production



1 night at a live music venue



1 video design and production for 1 event



1 museum exhibition installation

Key

London

Wider UK

Clustering
Creative industries businesses tend to gather in certain locations, forming creative clusters. The advantages of clustering are well documented and include the ability to access workers and clients, collaborate and share information.[15]

Creative clusters have a dominant presence in London.[16] This clustering means that creative supply chain networks are also very concentrated within London.

CASE STUDY

Accessing clients and staff:

Souvenir Scenic Studios
Eighty per cent of Souvenir Scenic Studio's annual revenue comes from theatre sector contracts. Being in London means the business is near the West End, where many theatres are found. Additionally, most of the studios' staff members are London-based, highly trained and skilled and have been with the company for a long time. Moving outside of London would mean losing access to this important skilled employment base.

CASE STUDY

Sector-specific clustering:

Fashion District
The Fashion District is a cluster for fashion innovation in East London. East London is becoming an important area for design businesses with a clear concentration of specialist design services and growth in fashion manufacturing. Gross value added and jobs in fashion sector in East London and the Upper Lea Valley have increased almost twice as fast as London's fashion industry over the same period (2010-2015). Hackney, Haringey, Lewisham, Tower Hamlets and Greenwich have all seen a growth in the broader design sectors and a corresponding increase in jobs in wider fashion production and distribution.[1]

1. BOP Consulting (2017) East London Fashion Cluster, Strategy and Draft Action Plan

15. Nesta (2016) The Geography of Creativity in the UK: Creative clusters, creative people and creative networks
16. Ibid

CASE STUDY

Touring, co-producing and hosting creative work:

Sadler's Wells
Sadler's Wells tours its own productions, creates co-productions with other companies and receives productions from UK and international companies. This has created strong links with dance organisations and performance venues both in the UK and abroad. In 2017-2018, Sadler's Wells commissioned 124 UK and international artists including choreographers, composers, designers and dramaturgs. Most of its expenditure on bringing creative work to the venue was directed outside of London.

Geography of supply chains outside of London
London-based creative consumption and creative production is also good for businesses outside the city. Through supply chain links, part of the spending from London's creative industries goes outside of London. The average share of suppliers located outside of London across all case studies is 40 per cent.

Some businesses servicing London's cultural infrastructure have more flexibility and can being located outside of London. These businesses might service a larger client base distributed across the UK; have a highly mobile workforce and / or have capacity to deliver goods and services to range of locations.

There is diverse creative activity happening all over the UK; other studies have identified 47 creative clusters across the UK.[17] Links between London's cultural infrastructure and locations outside of London clearly reflect this. For instance, London's creative consumption facilities maintain ties to talent from everywhere in the UK through commissioning work and maintaining relationships with other institutions.

17. Nesta (2016) The Geography of Creativity in the UK: Creative clusters, creative people and creative networks

CASE STUDY

60 per cent of total supply chain spend supporting the production of one theatre set is in the South East.

Key

The geography has been altered to reflect the proportion of supply chain spend in each region.

- London
- Wider UK
- Region with no spend identified

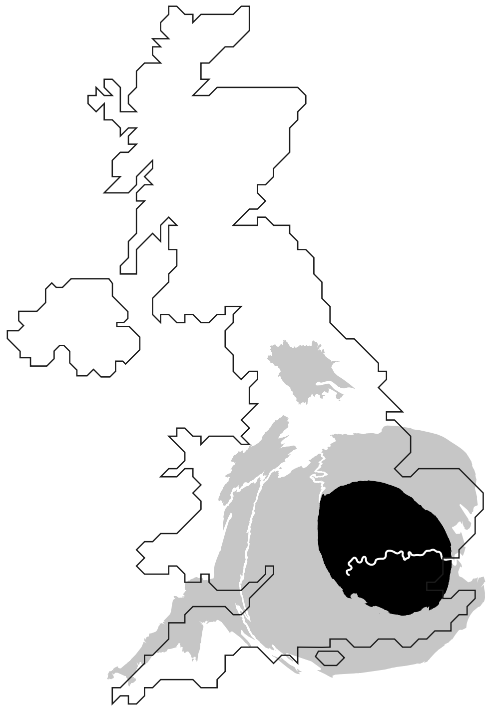


Fig.4.2

Proportional supply chain spend by region:

1 theatre production fabrication commission

CASE STUDY

Accommodating regular servicing needs:

Omeara

Each week, Omeara hosts four to five live music nights and one club night. The bar is open seven nights a week. The activities of this live music venue rely on daily deliveries of food produce and beverages, on-site cleaning services and security services by third-party companies. The goods and services that support one night of activity at the venue are entirely provided by suppliers based in London, near to the venue.

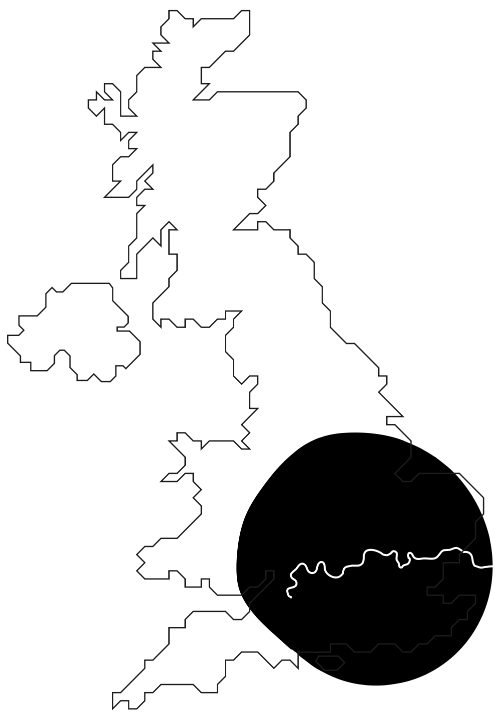


Fig.4.3

Proportional supply chain spend by region:

1 night at a live music venue

CASE STUDY

Accommodating 'on-site' work:

Studio ZNA
Ninety-five per cent of Studio ZNA's clients are in London. The company has designed the lighting for exhibitions held at many of London's museums and galleries. For Studio ZNA, proximity to this client base is vital, particularly where work needs to be done on site, such as installing different lighting elements for an exhibition. Studio ZNA's designers will be on-site to oversee the process and maintain quality. Local technicians are hired for the installation. Supplies are sourced by Studio ZNA or the museums themselves from a range of distributors.

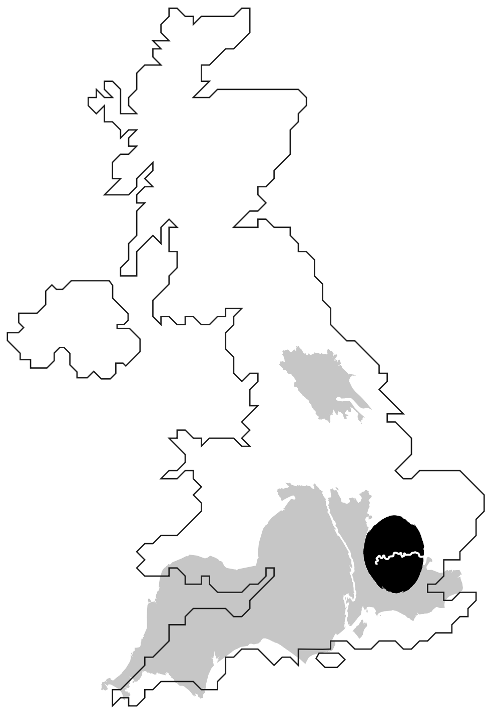
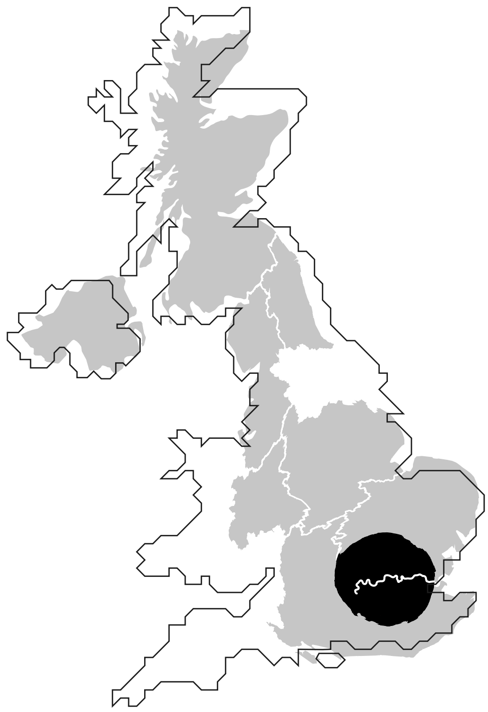


Fig.4.4
Proportional supply chain spend by region:
1 lighting design studio (annual spend)

CASE STUDY

25 per cent of total supply chain spend on producing one exhibition installation is in the South East and
20 per cent the East Midlands.



Key
The geography has been altered to reflect the proportion of supply chain spend in each region.

- London
- Wider UK
- Region with no spend identified

Fig.4.5
Proportional supply chain spend by region:
1 exhibition fabrication commission

5.
EMPLOYMENT SPACE

In the context of continued pressure on property and land values in London, it is important to have a more nuanced understanding of the types of workspaces which support the creative industries and creative supply chain.

Business activity and workspace needs
Within the creative supply chain, workspaces are as varied as the businesses they host – incorporating small and large office spaces, co-working space, industrial spaces, studio spaces, and yard spaces.[18] Findings from this study as well as other studies of creative workspaces have underlined the importance of adequate specification to ensure that creative practices and businesses are able to use a space.

Workspace requirements directly reflect business activity. Accessing adequate workspaces directly impacts production and employment capacity in the creative supply chain. Small changes in a design and/or fit-out spec can help ensure most creative practices are able to use a space, for example office-style spaces accommodating artistic production require running water; other production or rehearsal sites may require ventilation.[19]

CASE STUDY

Varied workspace:

Mesmer
Mesmer is located within a studio space in Deptford. The unit hosts an office, equipment storage area and testing area where the company can film, test equipment or prepare equipment-hire jobs. Mesmer also needs appropriate space for meetings, previewing work in progress and to receive clients.

Although most of Mesmer's work is desk-based, the company needs a varied workspace that can accommodate all its activities. That means standard serviced office spaces are unsuitable. Instead, it uses industrial premises, which can accommodate workshop and storage type spaces alongside desk-based work.

18. Small is defined as < 500sqm and large is defined as > 500sqm

19. We Made That, AOC, Counter Culture (2019) Cultural Facilities Design Toolkit

Workspaces in the wider supply chain may require servicing and deliveries related to production materials, which may be of a large scale. Some will have a need for large entry access points. Allowing access for heavy goods vehicles is key to both servicing needs as well as shipping products to client locations.

The nature of creative production often requires a level of flexibility. A dance production space will require single clear span spaces and a significant clear height that allows for full movement. A fabrication company may need to expand the scale of a space to accommodate a large stage set or sculpture, but may not need space of this scale year round.

In addition to flexibility, workspaces that can consistently provide a variety of spaces are key to creative production and creative supply chain activities. For example, workspace for fashion might need a workshop for creative production, an office from which to run a commercial business and a showroom for potential clients. Specialised design agencies may need desk-based spaces as well as storage areas for equipment.

Beyond the design of individual workspace units, attention needs to be paid to overall employment locations. Often, multiple small creative studios are provided within larger buildings to foster creative communities. Skills, activities, networks and business support can be shared within an area when workspaces have been designed well.

It is also becoming common to see co-location of production spaces in places of cultural consumption or with residential uses. In such cases, each use can benefit from the other through new revenue income and activation.

The draft new London Plan sets out a number of policy ambitions in relation to London’s industrial land and industrial capacity. Crucially, it has an overall aim for no net loss of industrial capacity in designated industrial areas across London. To support this the GLA has produced Industrial Intensification and Co-location Study: design and delivery testing (2019). This study tests the main forms of industrial intensification and co-location with residential development. This can be used to support the creative industries and types of workspace needed along the creative supply chain.

CASE STUDY

Hosting a diversity of production processes:

Souvenir Scenic Studios
Souvenir Scenic Studios occupies four large-scale industrial units on an industrial estate in south Bermondsey. There are many production processes involved in the making of sets, and the workspace is set up to accommodate all of them. The premises can accommodate carpentry, assembling, welding, painting and textile work and the site also includes a mezzanine office space.

As well as needing to host different types of production, the scale of set builds requires a large floorspace and high ceilings. All sets produced by Souvenir Scenic Studios are built and then fully assembled in the workspace to ensure that they are suitable. The sets are then shipped to client locations; access for heavy goods vehicles is necessary to meet these logistical needs. The fact that Souvenir Scenic Studios is located in close proximity to London's theatres also facilitates the timely delivery of sets.

Fig.5.1(a)
Souvenir Scenic Studios - workspace for fabrication, manufacturing, printing and administrative activities across four industrial units in South Bermondsey

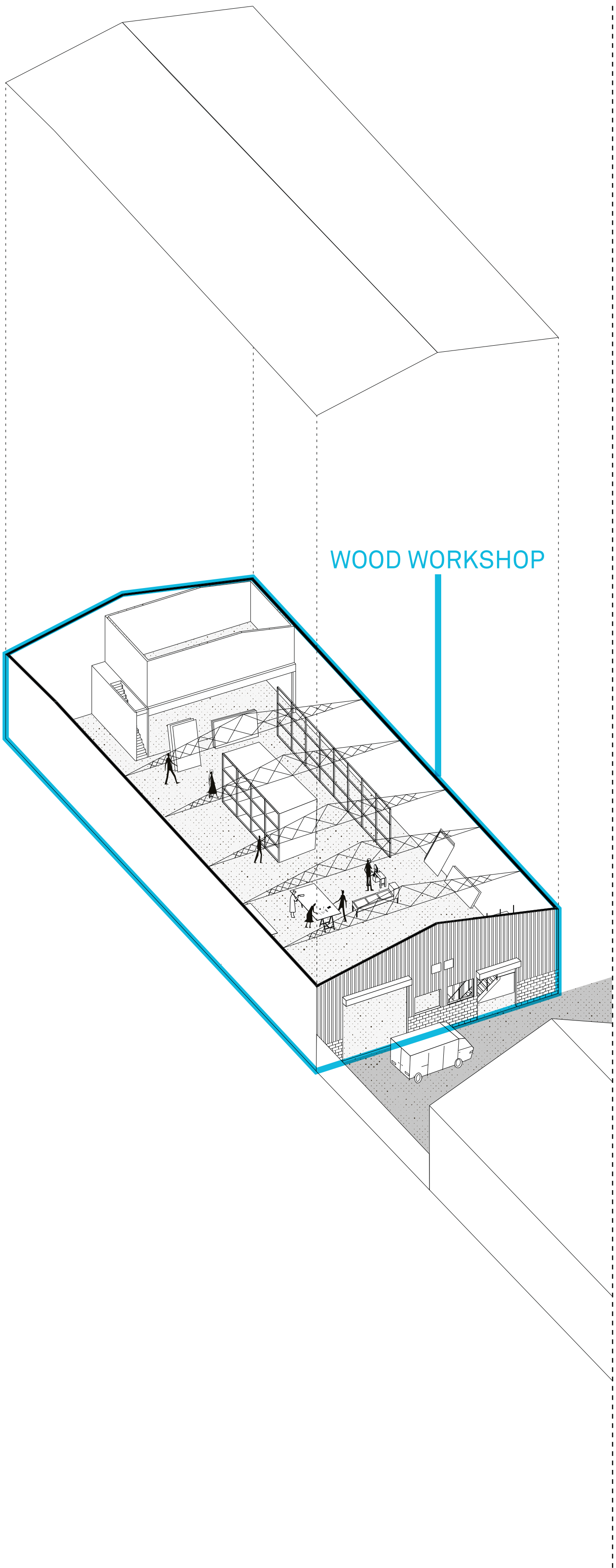
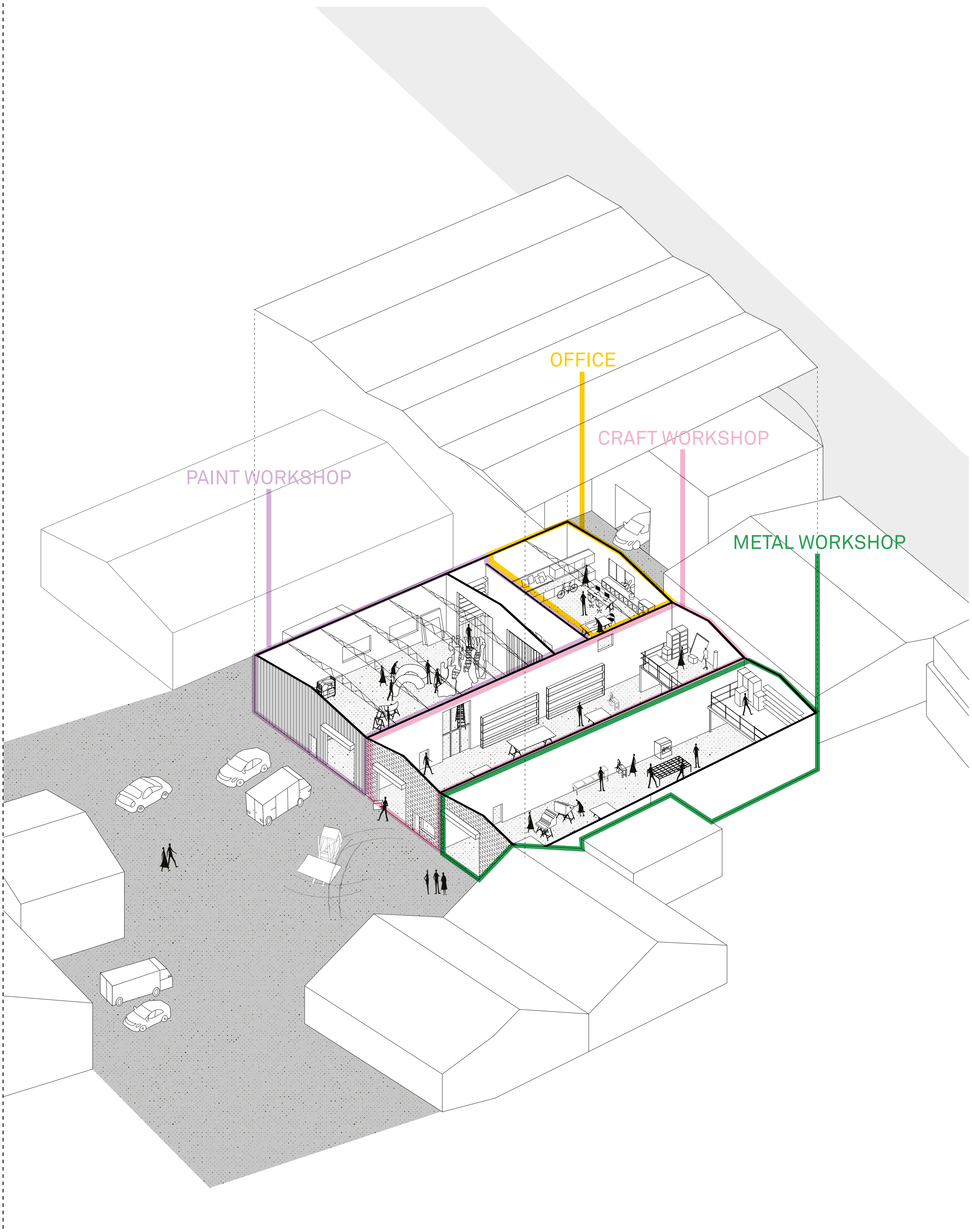


Fig.5.1(b)
Souvenir Scenic Studios - workspace for fabrication, manufacturing, printing and administrative activities across four industrial units in South Bermondsey



Creative production and industrial locations
All creative disciplines - including art and design, fashion, music, film, dance and theatre - require production space before engaging with their audience. Much of the creative production and supply chain activity in London takes place on industrial and light industrial sites.

For creative production businesses, the scale and nature of production translates into specific spatial and logistical needs. Industrial spaces are well-suited to hosting a range of production activities.

Creative production space within London is under pressure. Between 2010-2015, industrial land in London has fallen by over 500 hectares, at an annual rate of 106 hectares each year.[20]

The availability of industrial workspaces is also declining. Since 2010, vacancy rates have fallen from 9 to 3.5 per cent.[21] Case study businesses report how hard it is to find both adequate and affordable premises. Accessing adequate workspace has a direct impact on both production and employment within the creative supply chain. Securing larger floorspaces for instance would allow for some creative production activities to scale-up, and take on more work.

CASE STUDY

Impact of workspace on production:

Factory Settings
Factory Settings describes the industrial unit it currently occupies as 'space-constrained'. The unit's mezzanine office and yard space at times hosts some of the production when the workshop is busy.

It has had to adapt to these spatial challenges. Rising rents in industrial premises means it's hard to find an additional unit to host production overspill for larger scale elements. In response, the company is producing exhibition installations instead as these are smaller and modular and more suited to a smaller workspace. The company has also sub-contracted parts of the production. A larger floorspace would allow Factory Settings to keep more of the production in-house and directly hire additional local fabricators.

20. AECOM, Cushman and Wakefield, We Made That (2015) London Industrial Land Supply and Economy Study

21. Colliers International (2017) London Industrial Snapshot

APPENDIX

ECONOMIC ANALYSIS

Estimating the London creative supply chain
This describes the methodological principles used to estimate supply chain impacts for the London creative industries. There are two elements to this:

1. Mapping the Department of Digital, Culture, Media and Sport (DCMS) Standard Industrial Classification (SIC) code-based classification of the creative industries to the codes in Hatch Regeneris' London input-output model through a best fit process
2. Applying multipliers within Hatch Regeneris' London input-output model to direct employment in the London creative sectors to estimate the number of jobs within creative industry supply chains in London.

The principles behind the construction of the London input-output table; the mapping of DCMS SIC codes to those in the London input-output model; and the results of the supply chain multiplier analysis for the London creative industries are described in the economic analysis.

London input-output table
Hatch Regeneris' input-output table for London is a pre-existing input-output model. It contains detailed data by sector on supply chain relationships in London as well as imports from other regions and from overseas. From this data are derived employment multiplier effects for each of these sectors:

- The Type 1 multiplier summarises the ratio between all direct and indirect (supply chain) jobs, and direct jobs in the sector
- The Type 2 multiplier summarises the ratio between all direct, indirect and induced jobs, and direct jobs in the sector.

This London input-output table is constructed using the RAS procedure, an iterative process which uses the UK input-output tables and data for London on employment and Gross Value Added published by the Office for National Statistics (ONS). This is a robust approach to creating a sub-national input-output table in the absence of bespoke survey research.

Mapping the creative industries to input-output codes
The input-output tables contain data at the 2/3 digit level, whereas some of the DCMS definitions of the creative industries use 4 digit data. Hence, in order to combine the two data sources, this study has mapped the DCMS SIC code definitions to the codes in the input-output framework on a best fit basis. For instance, photographic activities (SIC 74.20) in the DCMS framework is classed under SIC 74: Other Professional, Scientific and Technical Activities in the IO model.

The table shows the 2-digit sectors that best map to the DCMS sectors. It is evident from this that some of these codes are an exact match (e.g. publishing, creative, arts and entertainment) whilst other codes will include a range of other activities (e.g. Education encapsulates all sectors of education as well as cultural education).

2 Digit SIC	SIC Description	Comment on match to DCMS
32	Other Manufacturing	Best fit to manufacture of jewellery and related items
58	Publishing Activities	Good match
62	Computer Programming, Consultancy and Related Activities	Good match
70	Activities of Head Offices; Management Consultancy Activities	Best fit to PR and communications activities
71	Architectural and Engineering Activities; Technical Testing and Analysis	Best fit to architectural activities
73	Advertising and Market Research	Good match
74	Other Professional, Scientific and Technical Activities	Best fit to design, photography and translation and interpretation activities
85	Education	Best fit to cultural education
90	Creative, Arts and Entertainment Activities	Good match
91	Libraries, Archives, Museums and Other Cultural Activities	Good match
59 and 60	Motion Picture, Video and TV Programme Production, Sound Recording and Music Publishing Activities and Programming and Broadcasting Activities	Good match

Direct and indirect employment footprint of creative sectors
The final step in the analysis is to estimate the direct and indirect economic footprint of the creative sectors in London. This study has estimated direct Full Time Equivalent (FTE) employment using detailed 4-digit data for London from the Business Register and Employment Survey (BRES) for 2016, using the DCMS definition. Employment could then be estimated in the entire London supply chain (all tiers) for each sector by applying the Type 1 (indirect) multipliers for the relevant best fit sector from the Hatch Regeneris London input-output model.

The results of this analysis are available as a technical appendix.

Other economic analysis
Separate analysis has been done to complement this core input-output analysis. This includes Location Quotient analysis.

Published employment data has allowed this study to look at the relative presence of particular sectors in London compared to the UK average. This indicates the extent to which there is specialisation in those activities (relative to the national benchmark). The UK input-output table contains published national statistics on supply chain relationships nationally (it is from this national table that the regional tables are derived when using non-survey methods). This robust national data describes what the key supply chain industries are to the creative industries are at a national level. Using this information, this study then looked at the location quotient of these industries in London, to examine the extent to which these supply chain industries are regionally concentrated.

Estimates on Direct and Indirect Employment (FTEs) within Creative Sectors in London, 2016

Creative Industries Group	SIC 2007	SIC 2007 Definition	Direct creative sector	Indirect/ supply chain	Total
Crafts	32.12	Manufacture of jewellery and related articles	700	600	1,300
IT, software and computer services	58.21	Publishing of computer games	250	200	450
	58.29	Other software publishing	1,550	1,350	2,850
Publishing	58.11	Book publishing	6,000	5,200	11,200
	58.12	Publishing of directories and mailing lists	10	50	150
	58.13	Publishing of newspapers	7,650	6,650	14,300
	58.14	Publishing of journals and periodicals	10,500	9,100	19,600
	58.19	Other publishing activities	2,450	2,150	4,600
IT, software and computer services	62.01	Computer programming activities	27,600	15,050	42,650
	62.02	Computer consultancy activities	35,00	19,550	55,500
Advertising and marketing	70.21	Public relations and communication activities	8,600	3,650	12,250
Architecture	71.11	Architectural activities	21,200	14,700	35,900
Advertising and marketing	73.11	Advertising agencies	30,300	22,800	53,100
	73.12	Media representation	6,050	4,550	10,600
Design: product, graphic and fashion design	74.10	Specialised design activities	14,600	13,350	27,950
Film, TV, video, radio and photography	74.20	Photographic activities	5,850	5,350	11,200
Publishing	74.30	Translation and interpretation activities	1,550	1,400	2,950
Music, performing and visual arts	85.52	Cultural education	650	150	800
	90.01	Performing arts	15,350	13,050	28,400
	90.02	Support activities to performing arts	2,000	1,700	3,650
	90.03	Artistic creation	11,000	9,300	20,300
	90.04	Operation of arts facilities	2,100	1,800	3,900
Museums, galleries and libraries	91.01	Library and archive activities	1,550	800	2,350
	91.02	Museum activities	2,750	1,400	4,200
Film, TV, video, radio and photography	59.11	Motion picture, video and television programme production activities	20,900	20,050	40,950
	59.12	Motion picture, video and television programme post-production activities	5,650	5,450	11,050
	59.13	Motion picture, video and television programme distribution activities	2,800	2,700	5,550
	59.14	Motion picture projection activities	2,550	2,450	5,000
	60.10	Radio broadcasting	4,700	4,500	9,250
	60.20	Television programming and broadcasting activities	10,950	10,550	21,500
Music, performing and visual arts	59.20	Sound recording and music publishing activities	3,800	3,650	7,450
Total, all creative industries			267,500	203,250	470,750

Source: ONS, BRES and Hatch Regeneris input-output model

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