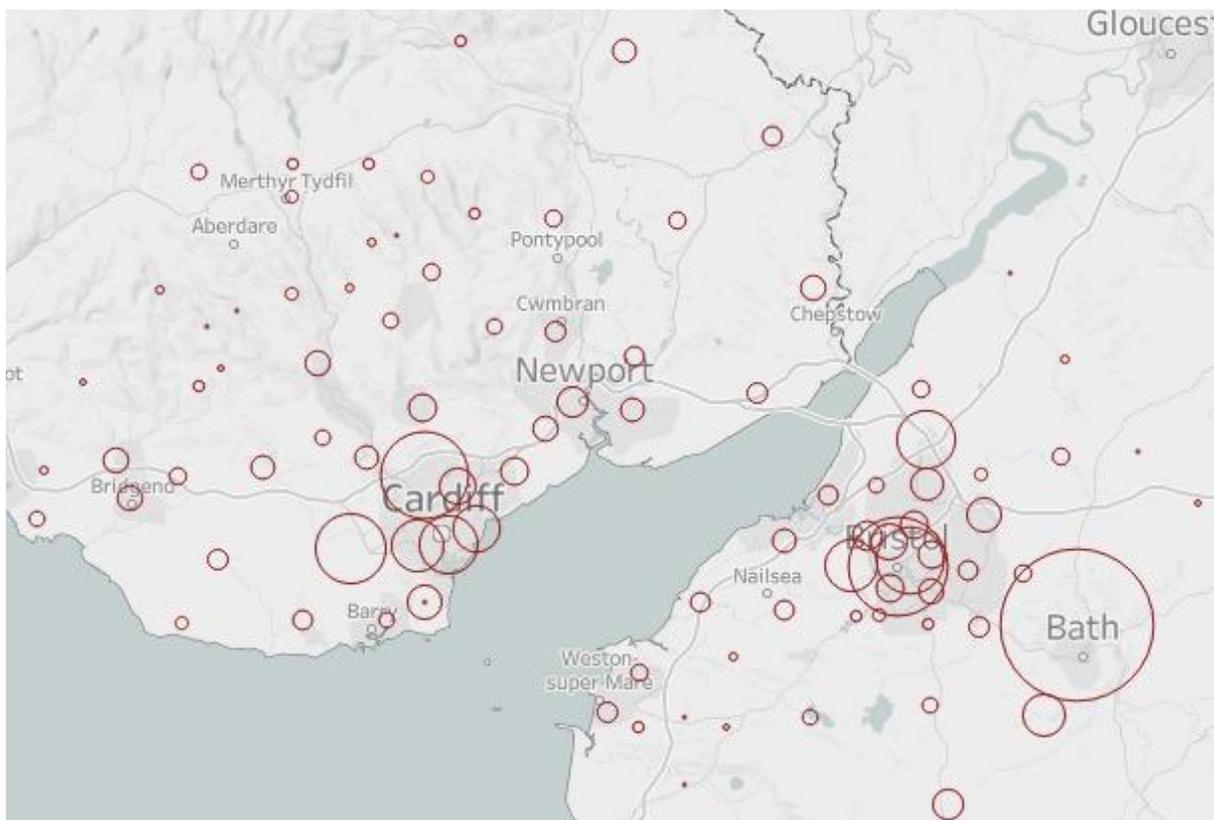


**The Cardiff Capital Region and West of England
Creative Supercluster**

Scoping Study



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1. Executive summary

This joint project is led by Media Cymru and MyWorld: two place-based research, development, and innovation (RD&I) programmes funded by UK Research and Innovation's (UKRI) Strength in Places Fund (SIPF), led by Cardiff University (CU) and the University of Bristol (UoB) respectively. Building on the insights and outcomes of the UK's two leading RD&I programmes focussed on the creative economy, its aim is to frame and evaluate the concept of a 'creative supercluster' spanning the Cardiff Capital Region (CCR) and West of England (WoE), exploring where future collaboration between these buoyant regional creative clusters could unlock new commercial and creative opportunities. The central questions addressed by this report are:

1. What is the scale and potential of the creative industries in the CCR and the WoE when combined?
2. How might new forms of collaboration add value across both city regions?

Key findings

- Data from 2021 showed that the **combined GVA growth of the CCR-WoE creative supercluster between 2010 and 2021 was more than 60% faster than the national UK creative sector and more than 2.5 times faster than the wider UK economy.**
- The combined profiles of the CCR and WoE constitute a creative supercluster of significant scale, comprising **14,500 businesses** that employ more than **63,000 full-time staff.**
- The aggregated **direct GVA of the creative supercluster is £2.7bn.** With additional induced and indirect effects, the total GVA of the CCR-WoE creative supercluster is approximately £5.3-£6.7bn.

As points of comparison:

- Analysis of 2021 FAME data shows that Greater Manchester had a creative cluster of 10,104 businesses with a direct GVA of £2.6bn.
- The combined creative industries employment of Greater Manchester and Liverpool (including travel to work area) is equivalent to the combined WoE and CCR regional total.
- The CCR and WoE account for 4% of UK creative industries employment but 5.5% of total sectoral GVA, indicating high productivity, in keeping with the success of their creative industry innovation clusters.

In summary, the project has:

- Generated a data set that identifies significant combined scale, with growth faster than the sector at a national level and a complementarity that could provide mutual benefits for both ecosystems.
- Identified a positive sentiment amongst industry and wider stakeholders for collaborative activities that would add value for both city regions.
- Provided evidence to support the continued exploration of a CCR-WoE creative supercluster, with a clear strategic direction of travel drawn from data and

consultation. This could generate positive outcomes for policy and cluster development, along with future commercial opportunities.

A note of caution however, nicely encapsulated by a consultee, was the distinction between geographical distance and 'political and cultural distance.' There are clear challenges and barriers, raised during the project, in seeking to work across cultural and administrative boundaries and competitive commercial centres.

It is therefore recommended that the next phase of work should comprise the following parallel strands:

- Further exploration of the CCR-WoE creative supercluster concept with a wider group of key stakeholders, enabling a review of political and structural challenges.
- An investigation of the international reach and global profile of a CCR-WoE creative supercluster.
- Updated data sets that include 2022 data to deepen our understanding of post-Covid recovery.
- A series of collaborative pilot projects to provide action research in the validation of the CCR-WoE creative supercluster concept. These will deliver both discrete value as individual exercises and an incremental demonstration of the potential of a combined perspective.

2. Background

Parallel creative cluster growth

i. Cardiff Capital Region

Like many post-industrial nations and regions, the creative industries have become increasingly important to the Welsh economy, particularly in the CCR – the ten local authorities around Cardiff.¹ The creative industries are seen as a priority sector for economic development by both Welsh government, and regional and local authorities.

Whilst the creative industries are clustered throughout Wales, they are concentrated in and around Cardiff, the Welsh capital, and across South Wales. Today, more than 15% of enterprises in Cardiff are in the creative industries. Over the last decade, Wales has seen particular growth in the film and television sectors: South Wales now has more television and film studios than anywhere in the UK outside London, and Cardiff is the UK's 3rd largest screen industry employer after London and Manchester.²

In recent years, the Welsh film and television sector has produced a range of global titles in high-end television drama, such as *Dr Who* (BBC/ Disney), *Sherlock* (BBC), *His Dark Materials* (HBO/ BBC), *Sex Education* (Netflix). It has also seen the rise of 'Welsh noir' television series like *Hinterland* (S4C) and *Hidden* (S4C/ BBC). It has provided a range of continuing series for UK broadcasters (such as *Casualty*, *Songs of Praise*, and *Only Connect*), and is home to one of Europe's largest minority language broadcasters (S4C), making it the UK's centre for bilingual production.

ii. West of England

Bristol has a well-established reputation in the creative industries, with one of the UK's largest, most diverse and creative communities – spanning from art to music to television. It was recognised as a UNESCO City of Film in 2017. It is particularly well known as a global leader in natural history production, representing 44.2% (£127.2m) of the Bristol screen production industry's overall £288m turnover in 2022,³ and animation, led by the Oscar-winning Aardman Animations.

The evolution of digital technologies has driven significant change in the sector in recent years, combining regional strengths in creative and tech to generate economic growth across video games, immersive, and publishing, in particular. In parallel, traditional subsectors such as film and TV continue to expand, with an increasing diversification of production and the establishment of facilities such as the Bottle Yard Studios contributing to its success in winning the coveted City of Film 2024 award at the Cannes Film Festival.

¹ Marlen Komorowski, Máté Fodor, and Justin Lewis, 'Clwstwr Creative Industries Report No. 2: The media sector in the Cardiff Capital Region' (Project Report, 2021). <https://clwstwr.org.uk/clwstwr-creative-industries-report-no-2-media-sector-cardiff-capital-region-driving-economic-growth>

² Ibid, p. 2.

³ 'BBC's The Green Planet boosted UK economy by £7.4million, new Bristol report reveals,' 23 April 2024. <https://www.bbc.co.uk/mediacentre/2024/bbc-bristol-economic-impact-report>

The WoE has an increasing international profile as a centre of innovation in the creative technologies, building on the research excellence of Bristol Vision Institute, (BVI), CAMERA and the Digital Futures Institute as well as the catalytic effect of industry-facing R&D hubs, including the Pervasive Media Studio and Engine Shed. The creative industries are identified as a key regional growth driver by the West of England Combined Authority (WECA) and form a key plank of its local innovation strategy.

Parallel Research, Development, and Innovation (RD&I) investments

Regional approaches to driving RD&I in the creative economy have been closely harmonised through university-led collaborations supported by funding from UKRI. Over the last decade, these programmes have grown considerably in scope, scale, and ambition, facilitating knowledge exchange between universities and businesses and strengthening regional creative clusters through RD&I.

The first significant UKRI investment was for a project called REACT that spanned South-West England and South Wales. Running between 2012 and 2016, REACT was one of four Knowledge Exchange Hubs for the Creative Economy funded by the Arts and Humanities Research Council (AHRC). Led by the University of the West of England (UWE) Bristol, REACT was a collaboration between Watershed in Bristol - a world-leading centre for the development of creative applications of new technology - and the universities of Bath, Bristol, Cardiff, and Exeter. Connecting researchers from the arts and humanities with creative businesses to make new prototype products or services, REACT funded over 30,000 hours of work in 53 collaborations between 73 academics and 55 businesses. Working across a wide range of creative sub-sectors, the REACT network grew to over 700 arts and humanities academics and creative businesses.

Building on the success of REACT, the University partners submitted two successful bids to the AHRC's Creative Industries Clusters Programme (CICP): a £120m investment running from 2018 to 2024 that was designed to drive innovation and growth across the UK's creative industries.

The Bristol+Bath Creative R+D programme was led by UWE Bristol, in partnership with Watershed and the universities of Bath, Bath Spa, and Bristol. With the overarching aim of developing a responsible environment for creative, inclusive, and sustainable innovation, the programme engaged with 332 creative companies and freelancers and awarded £1.6m directly to creatives across 140 investments. This led to additional co-investment of £20.2m into the programme's creative ecosystem and the creation of 18 new businesses, 82 new jobs, 34 international collaborations and 72 new prototypes, products, and services.

Clwstwr was led by Cardiff University, in partnership with the University of South Wales and Cardiff Metropolitan University, receiving additional support from the Welsh government. Focussing on the CCR's burgeoning screen sector, Clwstwr created a platform for independent companies, SMEs, micro-businesses, and freelancers to compete with global, highly integrated media companies. Clwstwr funded 118 RD&I projects that generated more than £20m of additional turnover and more than 400

additional jobs. Between 2019 and 2022, Clwstwr directly contributed £1 in every £13 of annual turnover growth in the Welsh creative industries.

As delivery of the CICH programmes accelerated, both city regions also made successful applications to SIPF: a £314m UKRI investment across 12 industrial clusters that that helps areas of the UK to build on existing strengths in research and innovation to deliver benefits for their local economy. Indeed, the only two major SIPF investments in the creative industries have been to consortia led by Bristol and Cardiff Universities.

Launched in 2021 and building on the production, technology, and research strengths of the WoE region, MyWorld is a creative technology RD&I programme funded by £30m from wave 1 of SIPF. Bringing together 13 diverse, world-leading partners across academia and industry, MyWorld is exploring the future of creative technology innovation by pioneering new ideas, products, and processes. Creating the opportunity for businesses to access pre-market research, world-class facilities (including 1,000 square metres of new collaborative R&D facilities), funding, tools, and training, the work of this creative hub will underpin new experiences in fiction, documentary, games, and live performance.

Media Cymru launched in 2022 following a £22m investment from SIPF wave 2. Media Cymru is designed to accelerate growth in the CCR's media sector, bringing together 22 media production, broadcast, technology, university, and public sector partners to supercharge media innovation. The programme responds to emerging technologies, increases small businesses' capacity for innovation, and addresses future media skills needs. Addressing challenges for the Welsh media sector in areas such as environmental sustainability, bilingual production, cultural tourism, and diversity and inclusion, Media Cymru is providing new infrastructure (including a world-class virtual production studio) and an RD&I pipeline that will transform cutting-edge creative ideas into new products, services, and experiences.

These investments signal the strength of broader Western Gateway region – with Bristol and Cardiff as two creative hubs – as a UK leader in creative industries innovation. As we detail in this report, this strength is reflected in the creative sector growth across both city regions.

CCR-WoE creative supercluster concept

The term 'supercluster' is an idea that is gathering increased political interest, highlighting the potential of a combined view of the creative industries across the CCR and WoE regions. The concept has been championed by figures such as Andy Haldane, Chief Executive Officer (CEO) of the Royal Society of Arts (RSA) and Head of the UK Government's Levelling Up Taskforce. Haldane writes:

Looking ahead, the trick will be to turn embryonic clusters of innovation and industry into actual ones, and existing clusters into superclusters spanning an even greater range of industries and geographies.⁴

The related concept of ‘creative corridors’ has also been explored in recent reports such as ‘Geographies of Creativity’, published as part of the AHRC-funded Creative Industries Policy and Evidence Centre’s (PEC) State of the Nations research series. The report noted:

In response to the rise of superclusters, there has been considerable interest in ways to exploit the economic benefits of agglomeration across multiple locations within and across regions, through so-called ‘innovation corridors’.⁵

Using experimental geospatial analysis, the report considers broad geographic areas from across the UK that ‘could be further explored for their potential to become creative corridors’.⁶ These include ‘a number of clusters in cities located roughly along the M4 motorway’ where ‘further opportunities for coordination may exist’.⁷

This report begins that exploration in earnest, recognising that an emerging CCR-WoE creative supercluster has the potential to provide a range of benefits to both city regions including:

- Increased investment potential through an expanded scale of opportunity.
- Joined-up and collaborative RD&I support.
- Greater international connections for a wider pool of creative businesses.
- A skilled talent pool and freelance community, working across the two areas to enhance sector capability and capacity.
- Collaborative training opportunities.
- Faster and more effective adoption of new technologies such as Artificial Intelligence (AI).
- Shared RD&I infrastructure.
- Shared foresight of global trends to anticipate opportunity and proactively adopt shared strategic goals.

Regional and city definitions

This study gathers and analyses data at both a regional and city level. The CCR is defined as the ten local authority areas covering South-East Wales (Blaenau Gwent, Bridgend, Caerphilly, Cardiff, Merthyr Tydfil, Monmouthshire, Newport, Rhondda Cynon Taf, Torfaen, and Vale of Glamorgan). The WoE is defined as the area

⁴ Andy Haldane, ‘Levelling Up: Sizing the prize, seizing the prize’ (RSA report, April 2022), p. 12. <https://www.thersa.org/globalassets/foundation/new-site-blocks-and-images/ceo-office/levelling-up-ceo-article.pdf>

⁵ Josh Siepel, Alejandro Ramirez-Guerra, and Sawan Rathi, ‘Geographies of Creativity,’ (Creative Industries Policy and Evidence Centre, States of the Nations research series, 2023), p. 7. https://pec.ac.uk/state_of_the_nation/geographies-of-creativity/

⁶ Ibid., p. 5.

⁷ Ibid., p. 39.

consisting of the City of Bristol, North Somerset, South Gloucestershire and Bath, and North-East Somerset.

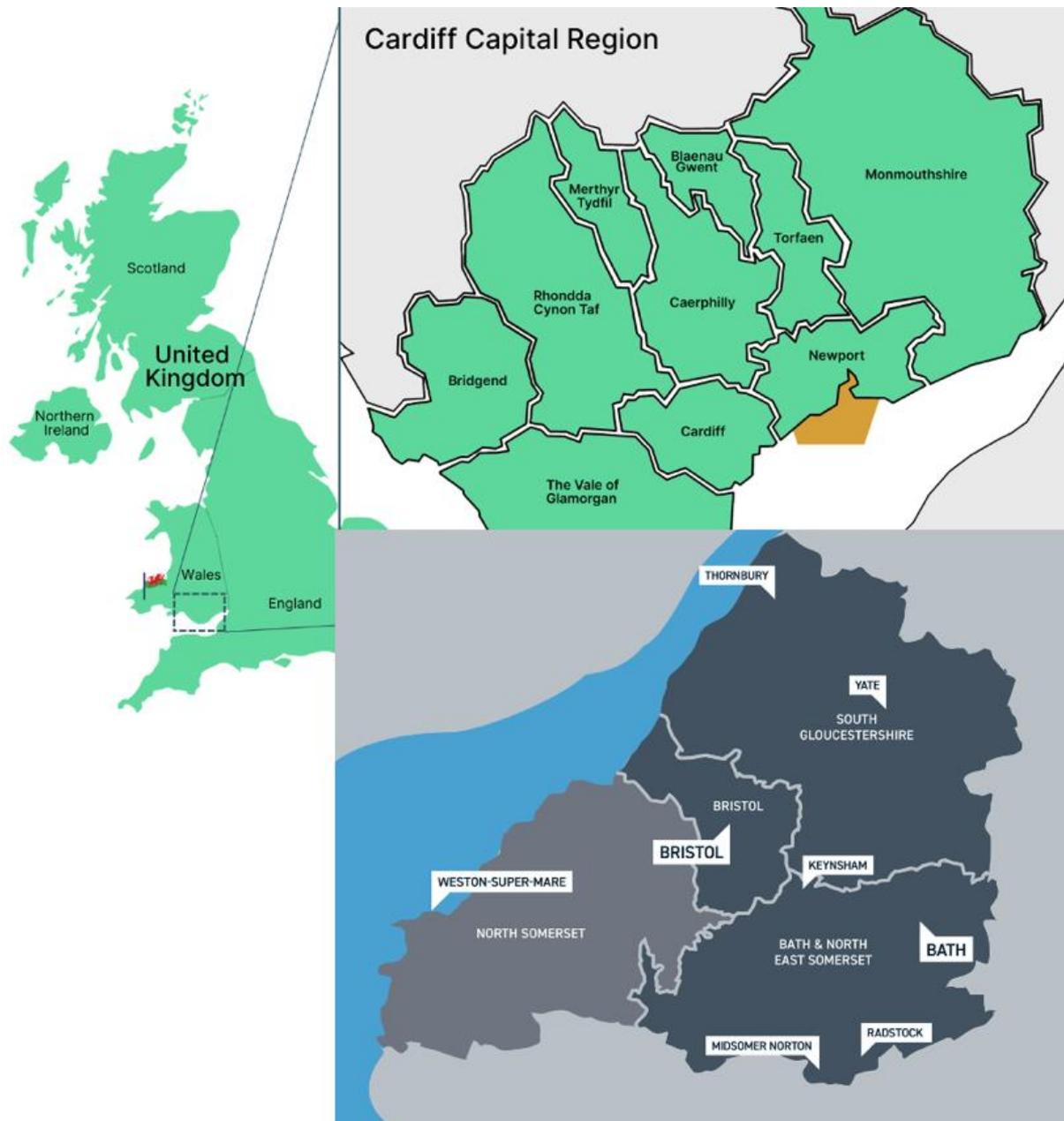


Figure 2.1. CCR and WoE regional maps

Data sources and methodology

This report develops two matching and comparable data sets to allow effective evaluation and interrogation of the creative industries in the two city regions. Building on significant work undertaken within the Clwstwr programme and continued into Media Cymru by Máté Fodor, the project was able to leverage this understanding of the CCR and generate a mirror data set for the WoE.

Firstly, granular, firm-level data from 2009 to 2021 was collected, cleaned, encoded, and analysed from both city regions. All financial data at the firm-level and from all creative industries (available from Companies House and the HMRC) were included

via Bureau van Dijk's FAME dataset. This data aggregates information on turnover, employees, wages and compensation, exports, R&D expenditure, and profits, based on the annual public financial declarations of UK firms.

The geographical classification of companies then involved filtering the registered addresses of UK firms using the postcodes that make up the CCR and the WoE. We recognise that these may not coincide with trading addresses. We also recognise that firms may conduct business and have impact on the creative industries of both regions without being registered there. The assumption is that the prevalence of such activities is similar across the two regions and, consequently, omitting them does not distort comparisons.

All companies that declare a SIC activity code that the DCMS defines as corresponding to a creative activity were included in our data, independently of size.⁸

Following this initial geographical and sectoral filtering, we cleaned and harmonised the datasets using the same criteria for both regions. Harmonising the cleaning and estimation approach was particularly important for the interpolation of missing financial data, which is relatively high in both regions. Previous survey-based research on hundreds of small-to-medium size creative businesses from the CCR was used for this exercise. Interpolating additional information on these companies is essential, as small businesses are not subject to financial filing requirements and, consequently, routinely feature missing data points in the FAME dataset.

This methodology allowed us to estimate a true distribution for each economic metric of interest, including turnover, GVA, and the number of employees. We then mapped this distribution to actual data observed in the FAME dataset to estimate values for the firms that did not return public financial declarations. This exercise was repeated for both regions, using the same methodology.

Finally, our data includes a subset of creative freelancers with their own micro-companies (i.e. with a Company Registration Number). Sole traders or unregistered creatives have been omitted from this study. It is important to note that studies estimate the size of the freelance creative workforce to be 25-33% of all creative workers. Given that our data does not allow us to measure the outputs of all creative freelancers, the metrics in this study constitute the lower bounds of true creative turnover, value generation, and employment.

⁸ For an overview of DCMS definitions of creative industries, see: <https://www.gov.uk/government/collections/creative-industries-economic-estimates>.

3. Headline findings

Combined Scale

The combined profiles of the WoE and CCR for 2021 constitute a creative supercluster of significant scale, comprising 14,500 businesses that employ more than 63,000 full-time staff. The aggregated direct GVA of the creative supercluster is £2.7bn.⁹ The CCR and WoE account for approximately 4% of UK creative industries employment but 5.5% of total sectoral GVA, indicating high productivity, in keeping with the success of their creative industry innovation clusters.¹⁰ As noted, these figures do not account for the large pool of freelance workers who are vital to the functioning of the creative industries ecosystem.

	Turnover (billions of GBP)	Full-time employees	Number of businesses	Direct GVA (billions of GBP)
WoE	3.13	36,874	8,983	1.65
CCR	2.20	26,282	5,565	1.04
Supercluster	5.32	63,156	14,548	2.69

Fig. 3.1. FAME data, 2021

As a point of comparison:

	Turnover (billions of GBP)	Full-time employees	Number of businesses	Direct GVA (billions of GBP)
Supercluster	5.32	63,156	14,548	2.70
Greater Manchester	4.45	77,653	10,104	2.66

Fig. 3.2. FAME data, 2021

Combined Growth

⁹ Data for turnover, employment, number of businesses, and direct GVA obtained from Bureau van Dijk's FAME dataset, providing firm-level, granular data for both the CCR and the WoE. FAME data is based on Companies House information and data from HMRC.

¹⁰ GVA in CCR-WoE supercluster is £2.69 billion. Total CCR-WoE supercluster GVA of c.£6 billion calculated by multiplying direct GVA by 2.2: a methodology based on estimates obtained in evaluation of the Clwstwr programme (<https://clwstwr.org.uk/clwstwr-creative-industries-report-no-2-media-sector-cardiff-capital-region-driving-economic-growth>). 5.5% based on total GVA in the creative industries in 2021 being £112.6 billion (<https://www.gov.uk/government/statistics/dcms-and-digital-sector-gva-2022-provisional/dcms-sectors-economic-estimates-gross-value-added-2022-provisional>). Total employment calculated on the basis of 63,156 full-time employees in supercluster and 2.3 million employees in the UK (<https://www.thecreativeindustries.co.uk/facts-figures/creative-industries-employment-14-above-pre-pandemic-level>). 63,156 employees equate to 2.7% of total UK creative industries employment, not counting freelancers. If freelancers are included, this would equate to c.90,000 FTEs in the CCR-WoE supercluster, which is c.4% of UK total.

Data from 2017 to 2021 shows a picture of variable but consistent growth across both the WoE and the CCR. When combined, the creative supercluster has experienced 21% employment growth and 35% growth in turnover.

	Turnover growth	Full-time employment growth	Growth in the number of businesses	Direct GVA growth
WoE	54%	25%	10%	63%
CCR	15%	16%	20%	50%
Supercluster	35%	21%	14%	58%

Fig. 3.3. FAME data, 2021

Direct GVA growth is consistently high and aggregates as 58% growth across the CCR-WoE creative supercluster.

As a comparator, the recently published DCMS Creative Industries Sector Vision estimated 32% GVA growth for the creative industries between 2010 and 2019, set against 20% GVA growth for all UK industries.¹¹ Across the same period, GVA growth in the CCR-WoE creative supercluster was 52.5%.

The growth trend of the combined CCR and WoE regions therefore demonstrates GVA growth that was more than 60% faster than the national UK creative sector and more than 2.5 times faster than the wider UK economy.

Regional differences

When comparing two regions, a notable differentiating factor is the presence of Bath in the WoE. In Bath, the WoE has a significant second cluster of creative businesses and associated economic impacts: far larger than any secondary location in the CCR, such as Newport.

However, whilst some scaling is visible in data values at a regional level, most of this impact is concentrated within a 'specialism' rather than across the broad sweep of the creative economy. The Bath creative economy is dominated by publishing, both for historic reasons and through the emergence of a new wave of digital publishing businesses based in the city.

¹¹ Creative industries sector vision: a joint plan to drive growth, build talent and develop skills,' DCMS, June 2023. <https://www.gov.uk/government/publications/creative-industries-sector-vision/creative-industries-sector-vision-a-joint-plan-to-drive-growth-build-talent-and-develop-skills>.

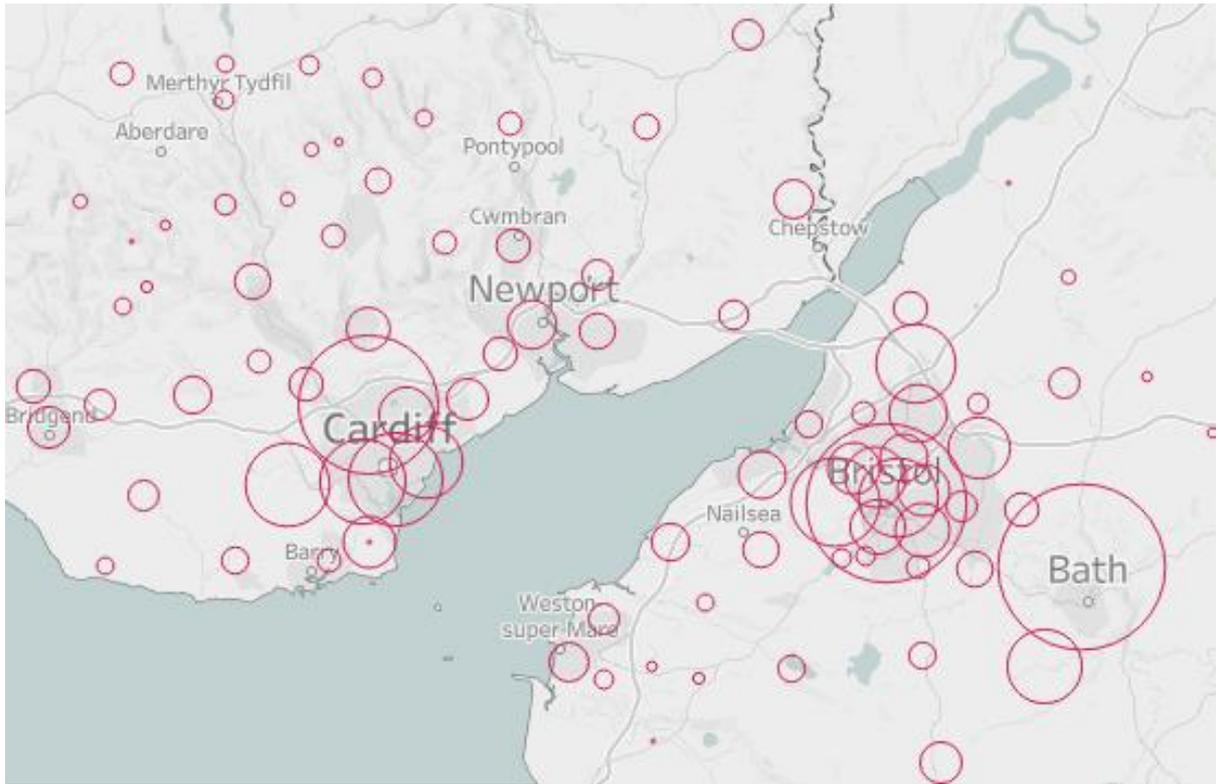


Figure 3.4. Economic geography – employment

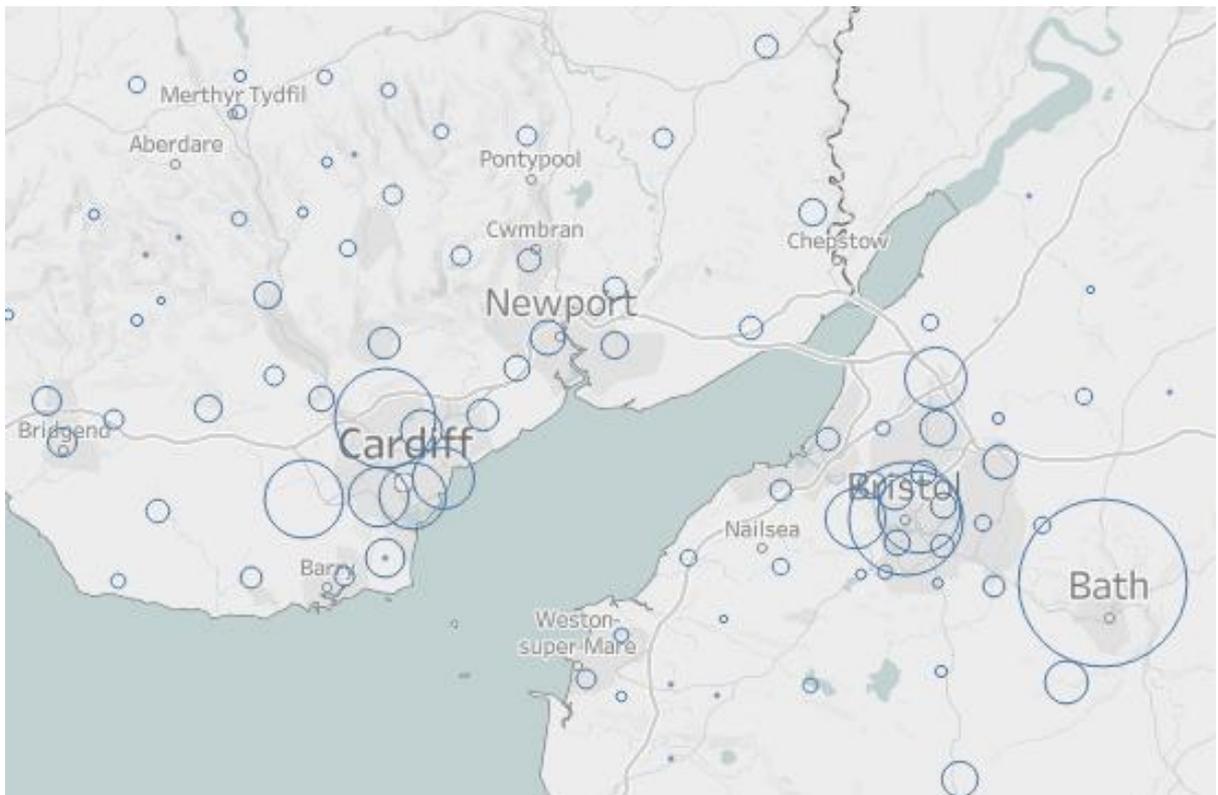


Figure 3.5. Economic geography - turnover

Company volatility

The WoE has a significantly larger number of creative industry businesses than the CCR, in part a result of the Bristol plus Bath effect. However, at a city level a different dynamic emerges. Bristol has more creative businesses than Cardiff, but they are on average smaller: for example, tech-related start-ups.

The CCR has (comparatively) larger businesses concentrated in film and television services. This dynamic generates visible volatility where significant production flows, or the impact of Covid-19, have a strong correlating effect, both positive and negative.

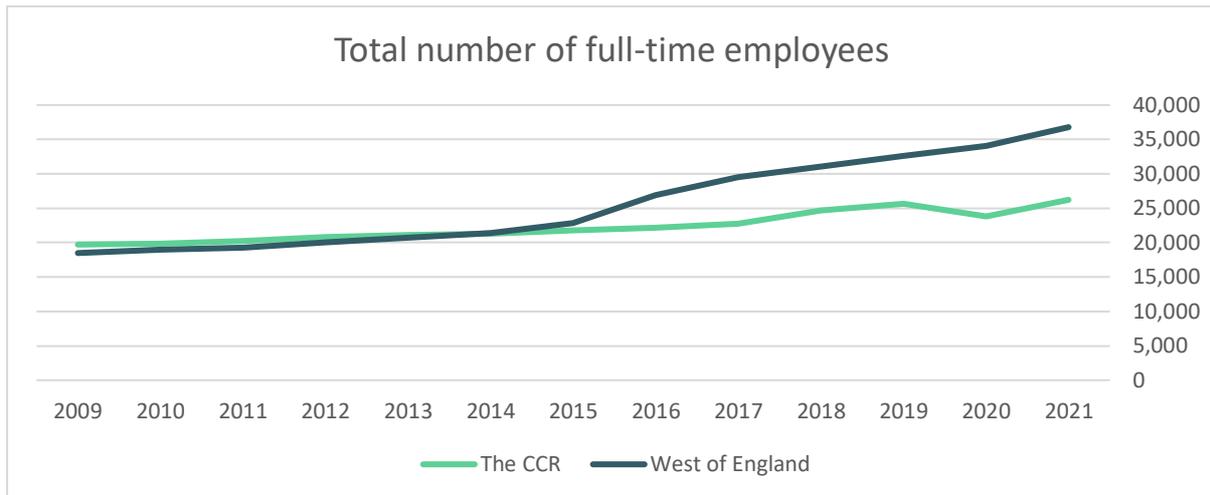


Figure 3.6. Total number of full-time employees

Subsector breakdowns

Whilst the overall economic impact of the creative industries in the cities of Bristol and Cardiff are comparable, the subsector breakdowns indicate very different strengths. For example, the television and music sectors are bigger in the CCR, whereas architecture and publishing are bigger in the WoE.

This complementarity is potentially beneficial, allowing a combined strategic approach across the two regions to generate a blended ecosystem rather than supporting directly competing mirror industries.

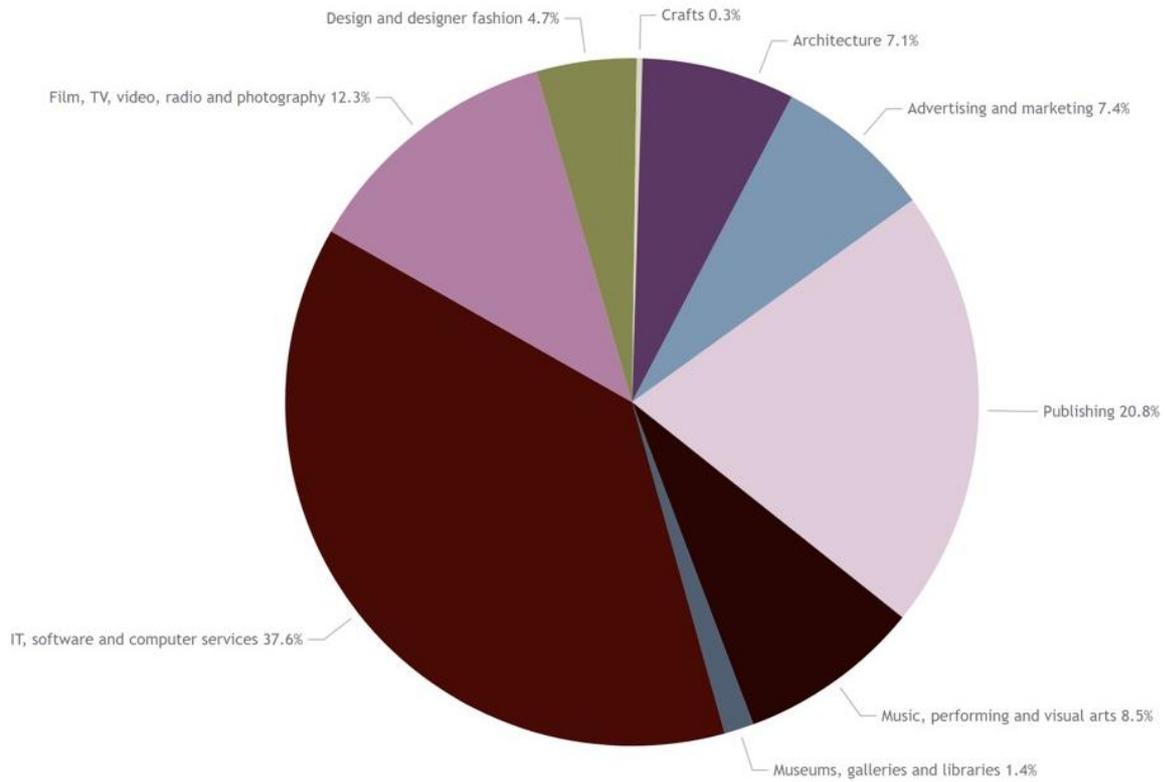


Figure 3.7. Sectoral breakdown of employment (2021) – WoE

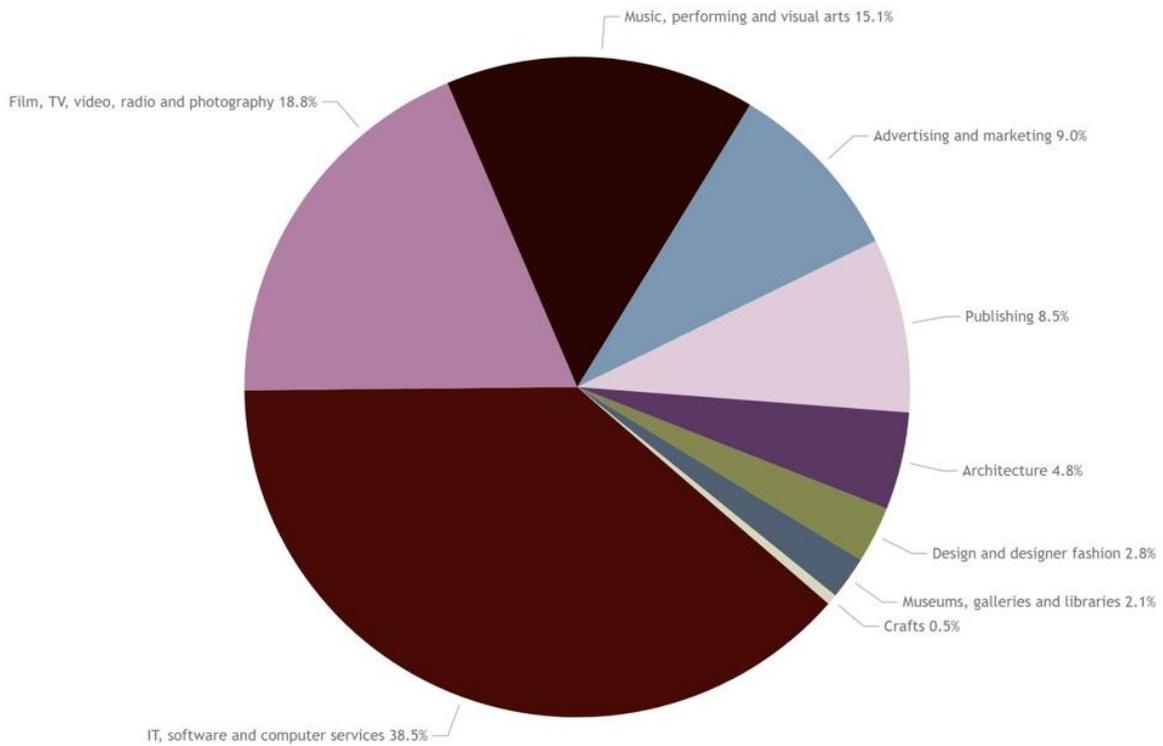


Figure 3.8. Sectoral breakdown of employment (2021) – CCR

Interdependencies

We explored the current interdependence of the two city regions through a series of industry focus groups. These discussions suggested some evidence of existing commercial flows:

There has for a long time been a flow of talent between Bristol and Cardiff - in both directions.

We already collaborate with Cardiff companies.

However, they also suggested that this is not a universal view, and that much of the potential of the proximity of the two clusters remains unrealised:

To my knowledge the two cities are operating completely independently of each other.

The only connection with Cardiff is that we have hired from there. No commercial or partnership connections.

There is clearly some evidence of interrelation between the cities and demonstrable workflow between companies who have located in both clusters (e.g. Gorilla, Films@59), but further research is needed to generate a more comprehensive evidence base.

4. Regional data deep dive

In the final two sections, we drill deeper into the regional and city-level data sets.

i. Population and number of businesses

The populations of the CCR and the WoE are broadly comparable. In 2021, the total population of the CCR was 1.5 million and the total population of the WoE was 0.95 million. The most densely populated area of the CCR was the city of Cardiff, with a total population of 0.36 million.

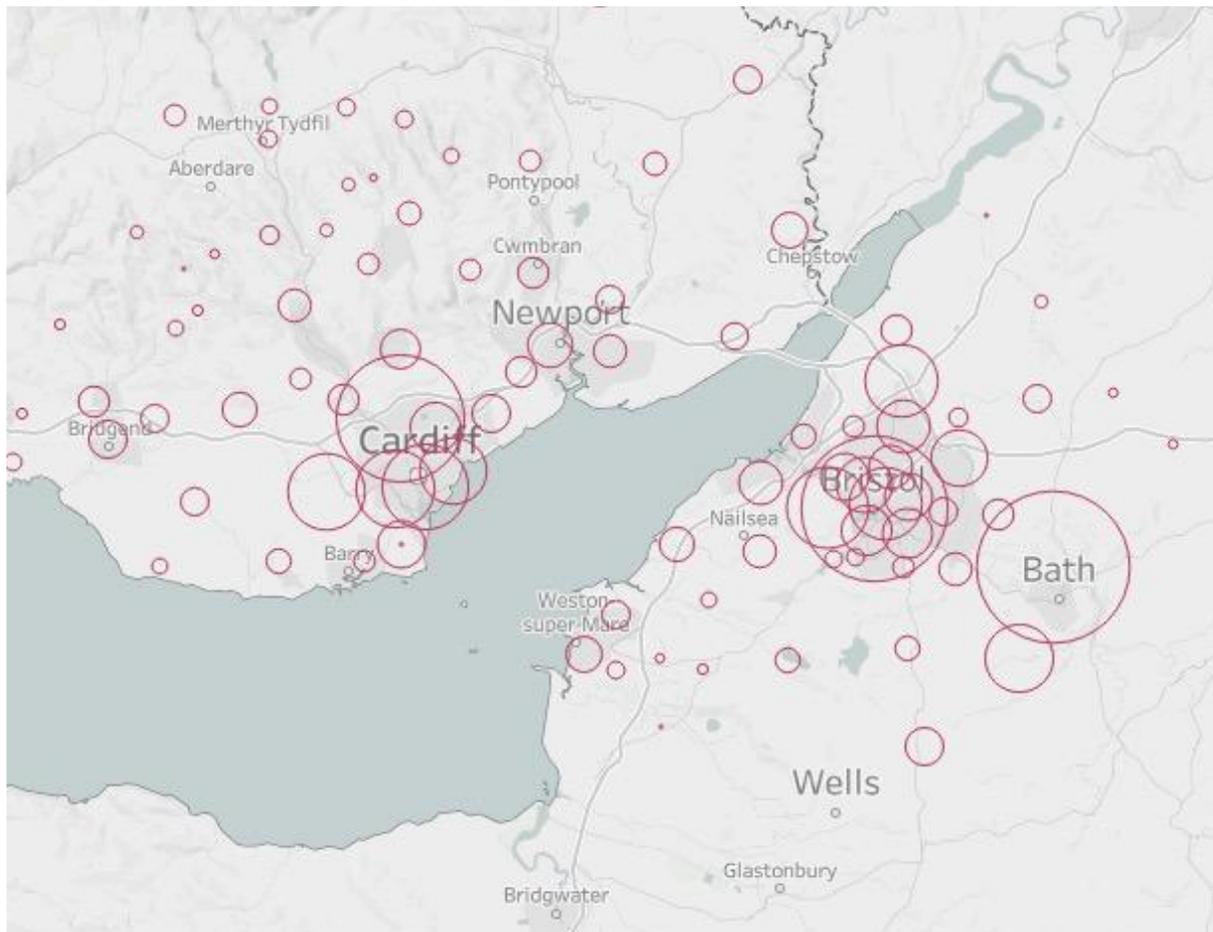


Figure 4.1. Population density

Alongside the city of Bristol, which has a population of half a million people, in 2021 Bath had a population of 110,000. In comparison, the second city in the CCR, Newport, had a population of 130,000.

The total number of creative businesses in the WoE is more than the CCR, with a total of 8,983 in the WoE comparing to 5,565 in the CCR.

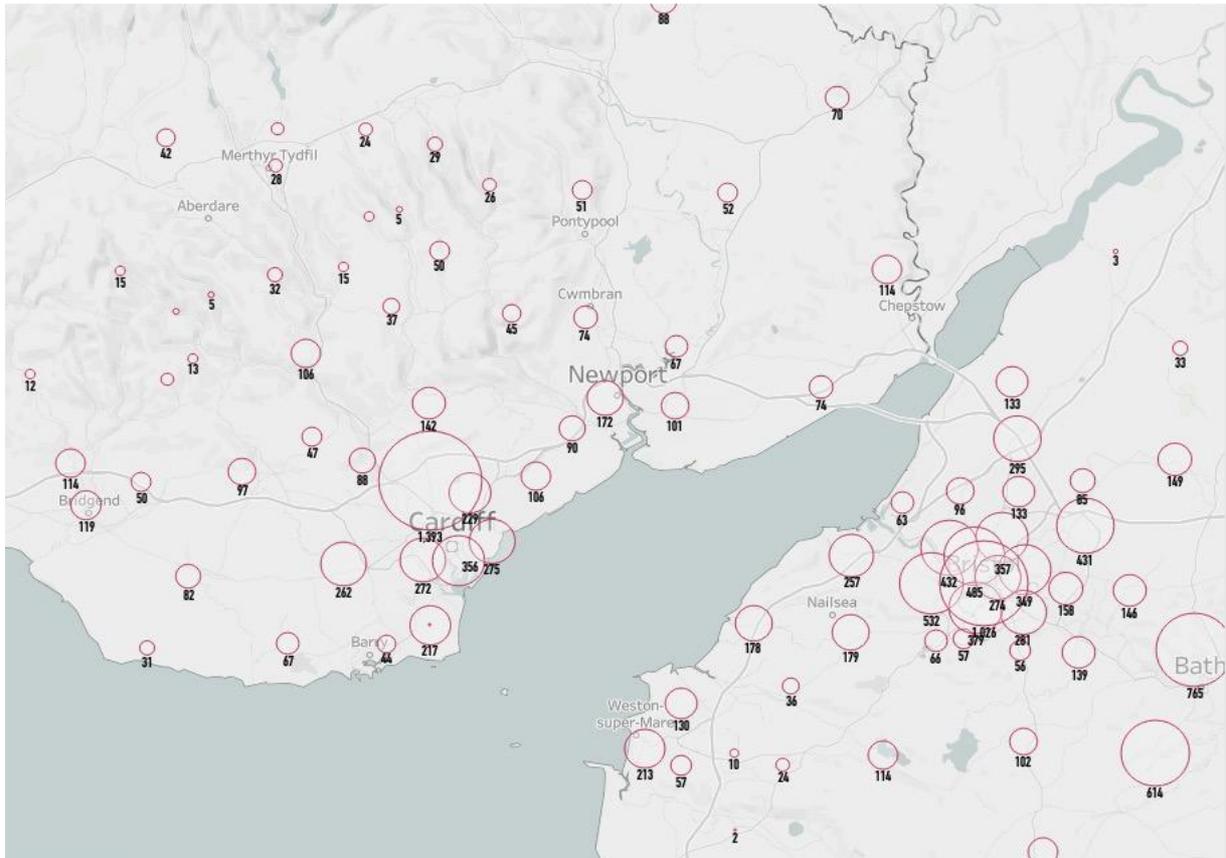


Figure 4.2. Total number of creative businesses

In 2009, the number of creative businesses in the two regions was very similar: 4,141 in the CCR and 4,376 in the WoE. However, between 2009 and 2021, the number of creative businesses in the WoE grew at a significantly faster rate than the number of creative businesses in the CCR, rising to 9,116 in the WoE and to a comparatively much smaller number, 5,553, in the CCR.

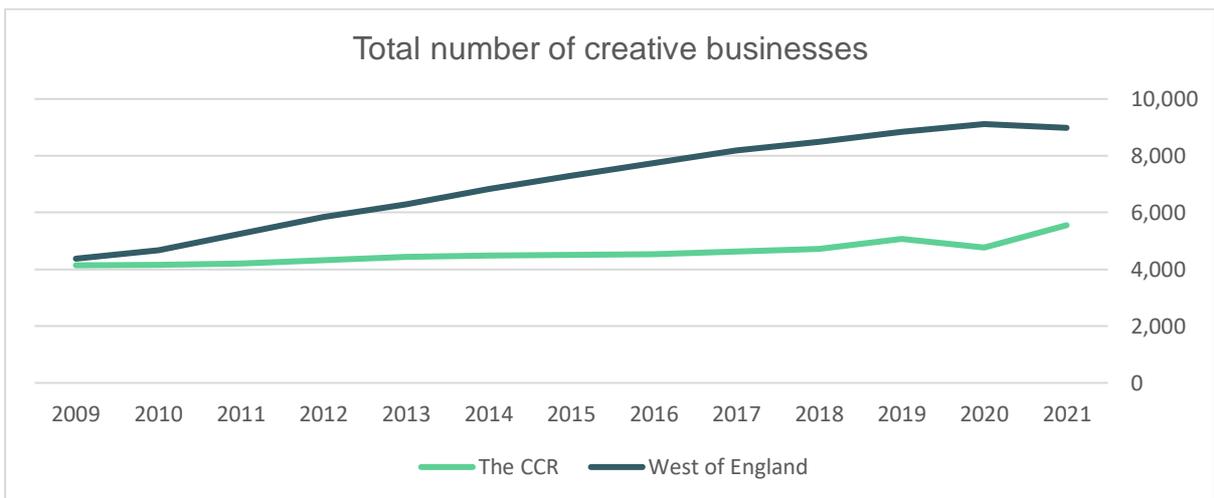


Figure 4.3. Total number of creative businesses

The regions were then impacted in different ways by the Covid-19 pandemic in 2020. During the first lockdowns in 2020, the total number of creative businesses in the CCR fell slightly, followed by a strong recovery in 2021 as global trade began to recover

and new creative business models evolved. The WoE, on the other hand, continued to experience steady growth in its total number of creative businesses throughout 2020. There was then a slight drop in 2021: the first for over a decade. These contrasting trends are another indicator of the complementarity of the two regions, reflecting the comparative strength of the technology sector in the WoE (which was well-placed during the Covid pandemic) and the film and television sector in the CCR (which was initially strongly negatively impacted by Covid).

ii. Economic trends

Aside from the short-term impact of the Covid-19 pandemic, between 2009 and 2021 the creative economies of both regions experienced strong growth. This can be seen in the data for GVA, R&D expenditure, turnover, total wage bill, and the total number of employees (figures 4.4 to 4.8).

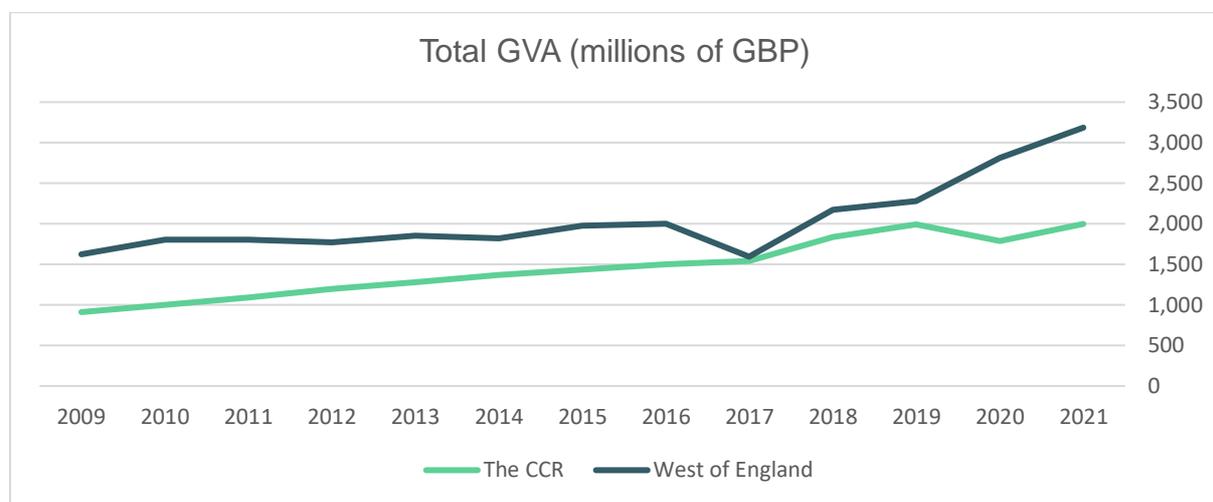


Figure 4.4. Total GVA

Outside of the Covid-19 period, GVA growth in both regions has been strong, with the CCR exhibiting more consistent annual growth rates whilst growth in the WoE has been more uneven. This was often impacted by large companies, as is the case for the 2017 WoE dip in figure 4.4.

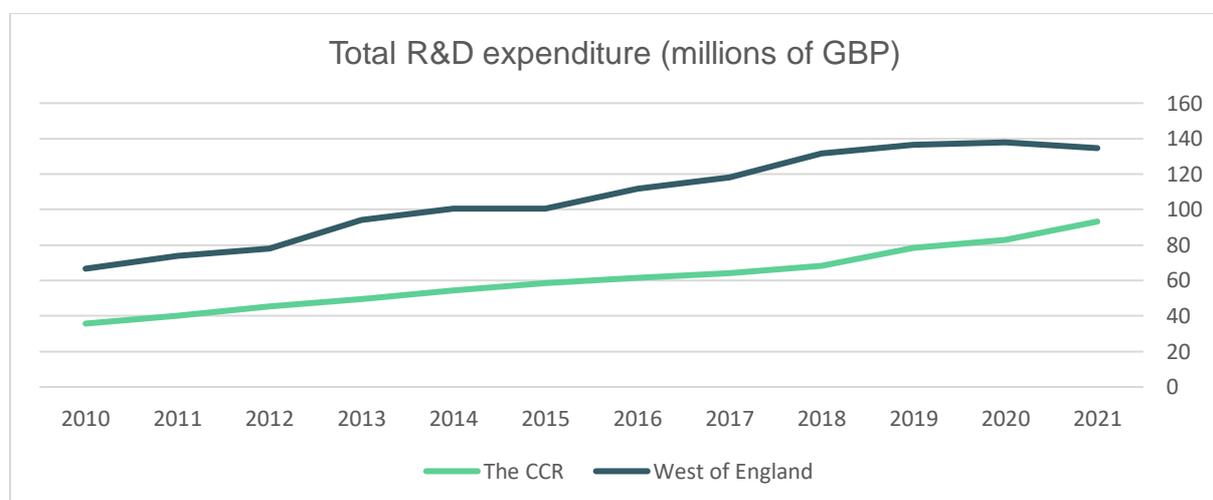


Figure 4.5. Total R&D expenditure

Figure 4.5 shows consistent growth in R&D spending in both regions, especially in the WoE until 2018, but with the CCR closing the gap with strong R&D growth since then.

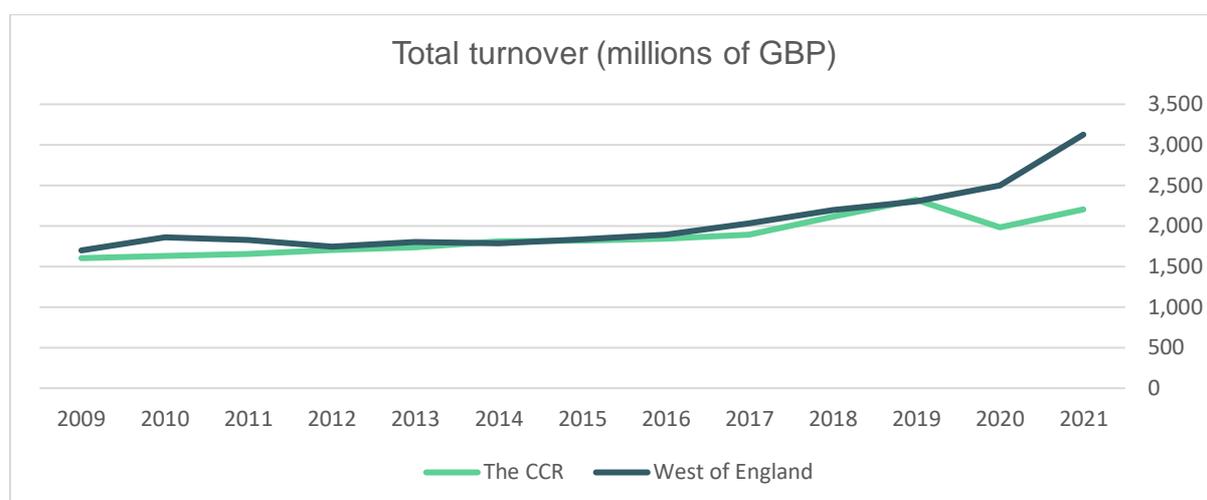


Figure 4.6. Total turnover

Turnover growth (figure 4.6) was broadly comparable across both regions until the Covid pandemic in 2020, which had a significantly negative impact on the CCR's creative economy and a notably positive impact on the WoE. We see a similar pattern in employee growth (figure 4.7) reflecting the strength of the technology sector in the WoE and the size of the film, television, and music and performance sectors in the CCR.

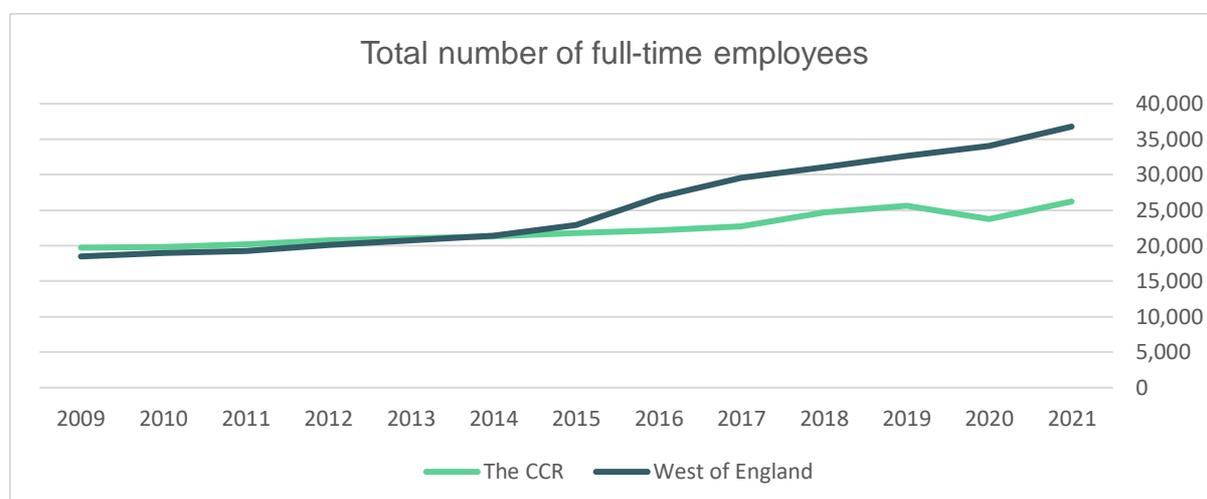


Figure 4.7. Total number of full-time employees

Employee growth has been consistent in the CCR (apart from a Covid dip) and particularly strong in the WoE since 2015 (figure 4.7).

iii. Sub-sector breakdown

A sub-sector breakdown of regional GVA growth rates (figure 4.8) and total number of employees (figure 4.9) reflects the importance of Bath's publishing sector and the CCR's film and television, and music and performance sectors. Both regions have

significant strength in IT, software, and computer services, although this is particularly the case in the WoE.

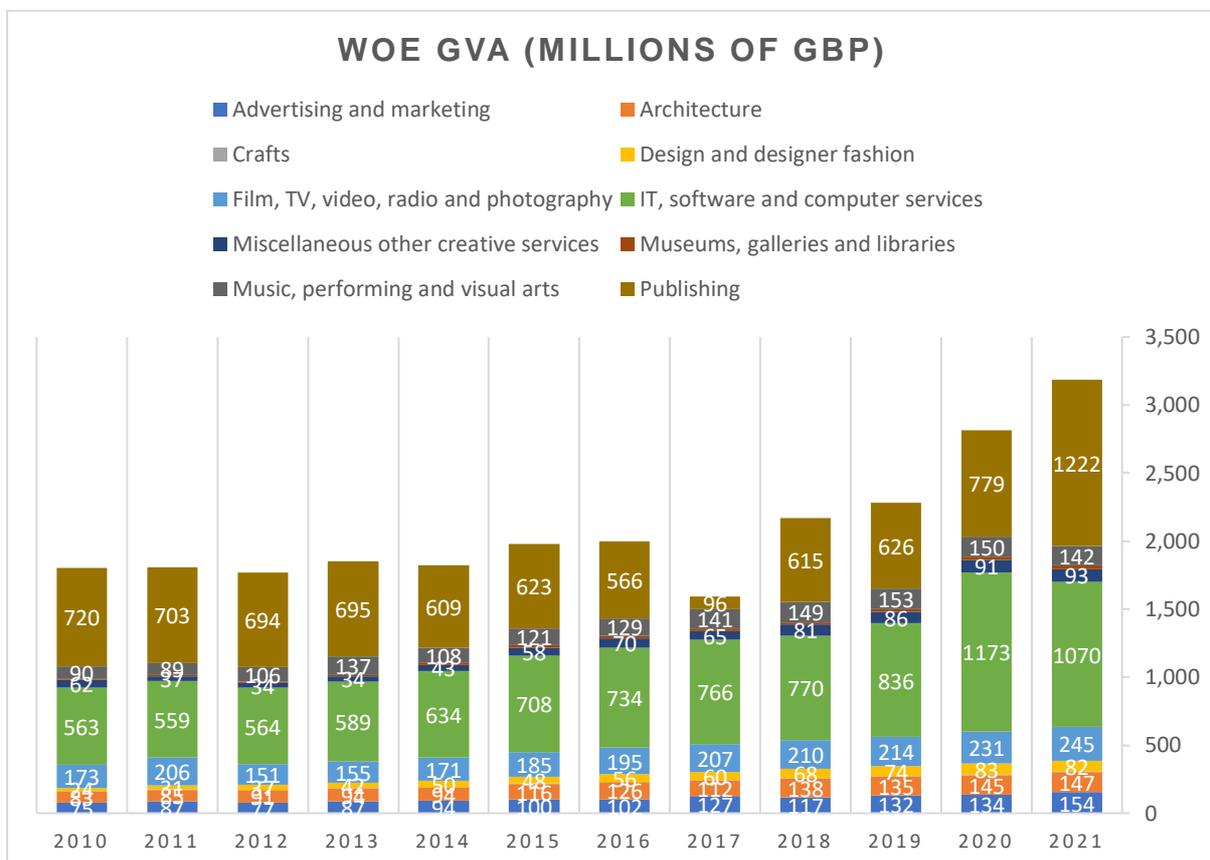
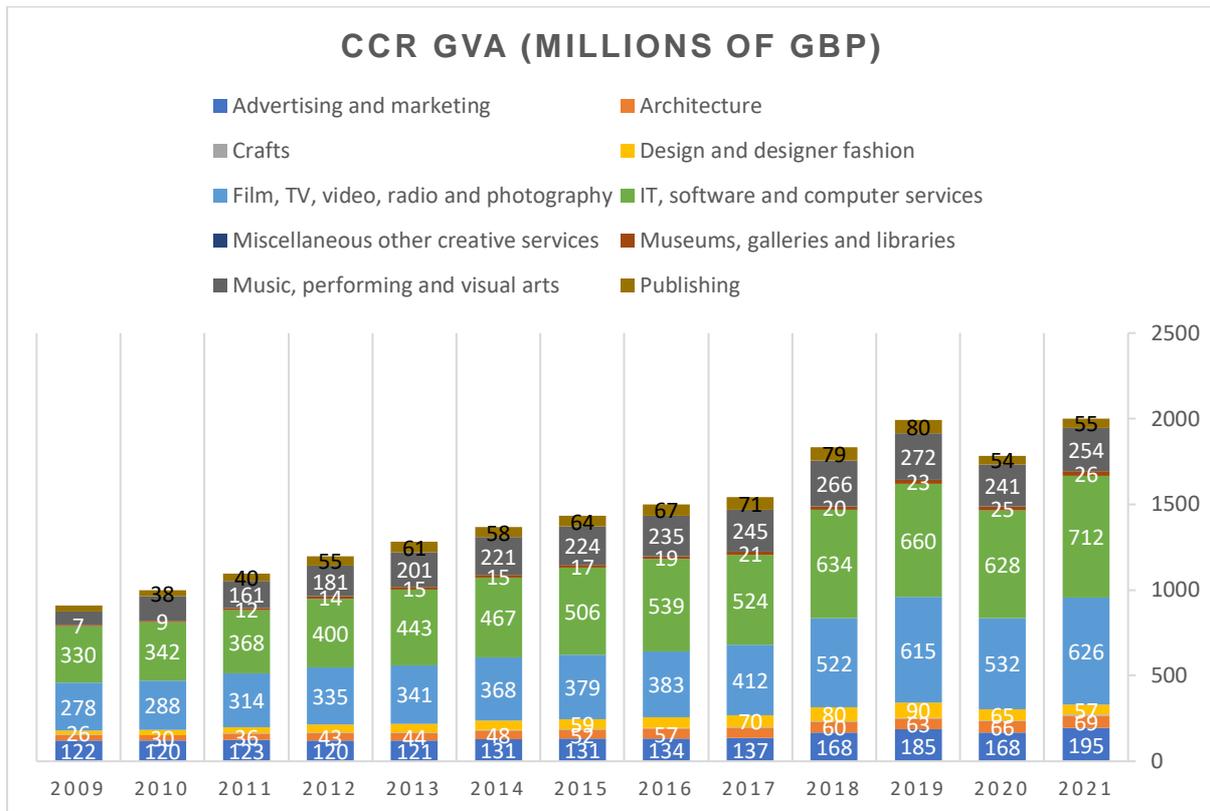
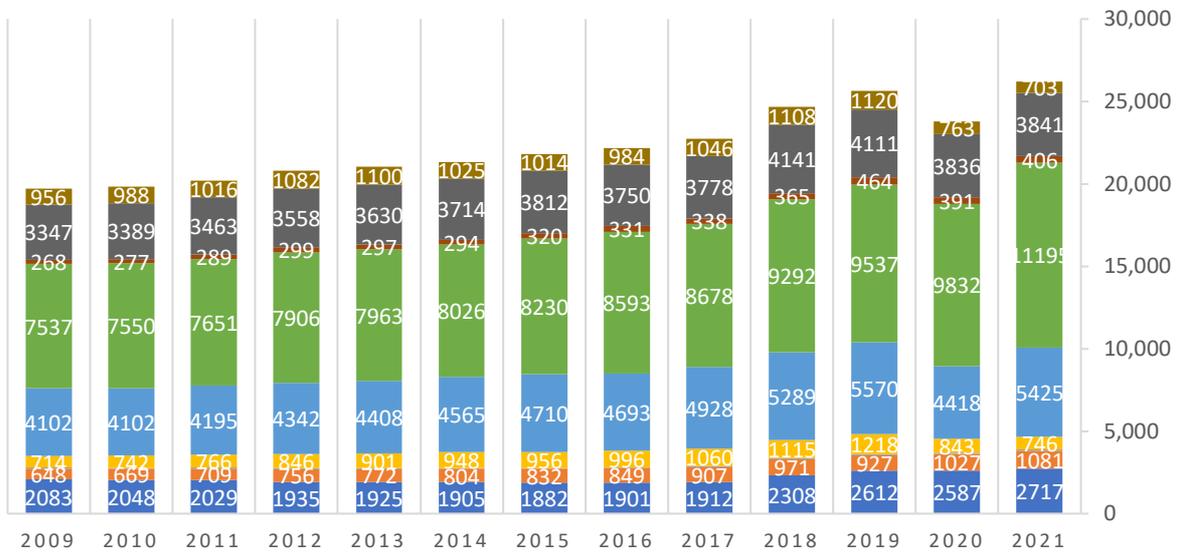


Figure 4.8. Total GVA by creative sub-sector

CCR TOTAL NUMBER OF FT EMPLOYEES

- Advertising and marketing
- Architecture
- Crafts
- Design and designer fashion
- Film, TV, video, radio and photography
- IT, software and computer services
- Miscellaneous other creative services
- Museums, galleries and libraries
- Music, performing and visual arts
- Publishing



WOE TOTAL NUMBER OF FT EMPLOYEES

- Advertising and marketing
- Architecture
- Crafts
- Design and designer fashion
- Film, TV, video, radio and photography
- IT, software and computer services
- Miscellaneous other creative services
- Museums, galleries and libraries
- Music, performing and visual arts
- Publishing

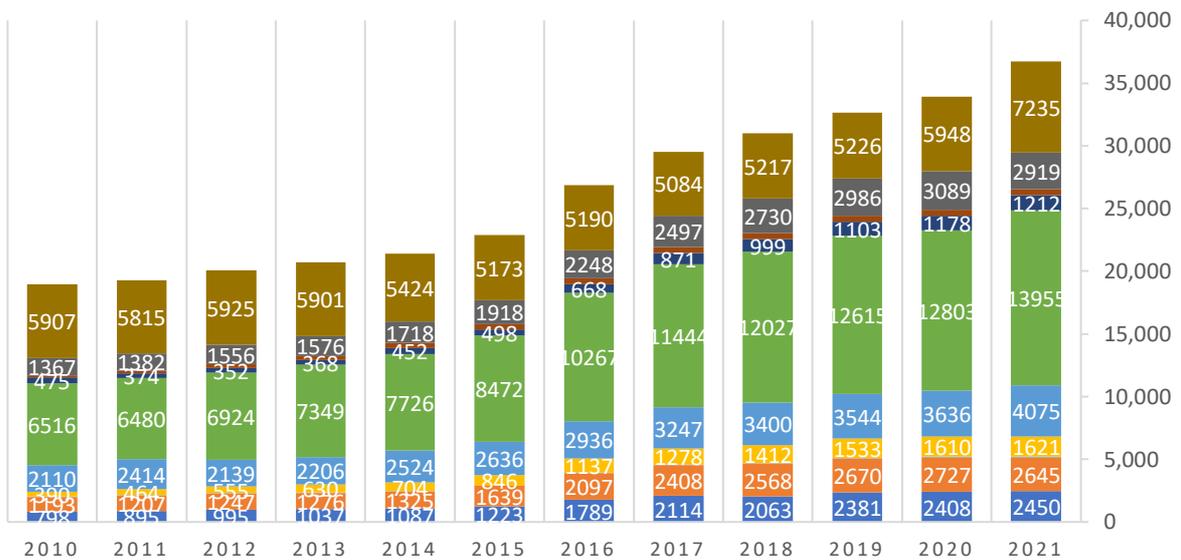


Figure 4.9. Total number of full-time employees by creative sub-sector

iv. Economic geographies

Spatial mapping of turnover and GVA in the two regions shows the clustering in and close to urban areas — notably Cardiff, Bristol and Bath (figures 4.10 and 4.11).

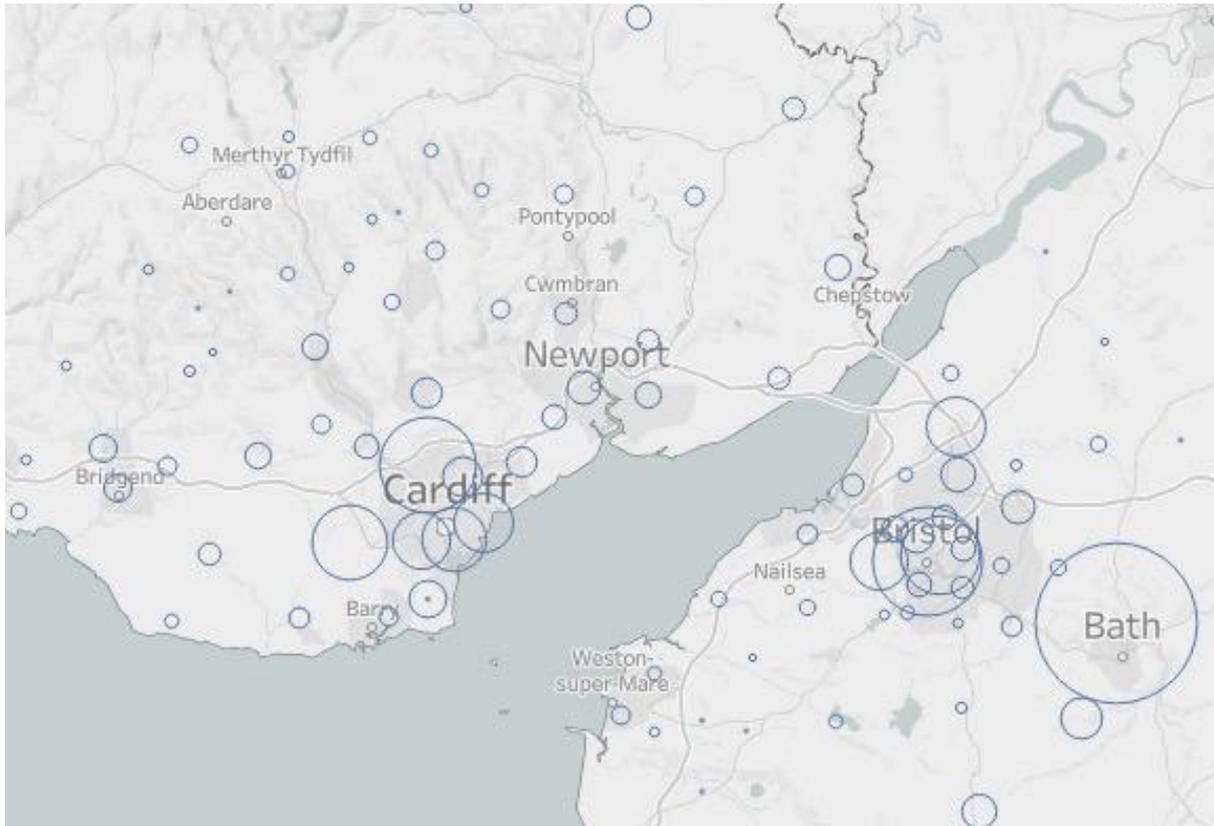


Figure 4.10. Turnover

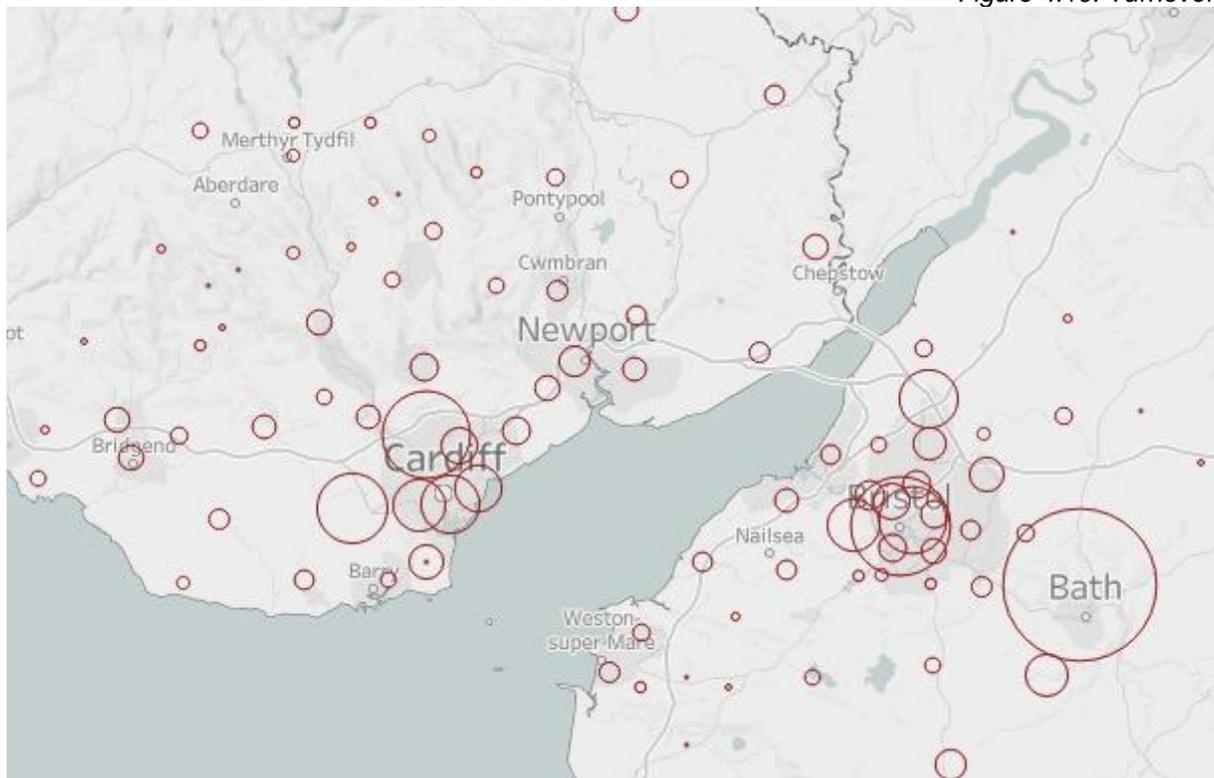


Figure 4.11. GVA

v. Growth rate

Whilst the growth trajectories of both regions are broadly comparable, one of the key findings of our study is that the acceleration (or deceleration) of year-on-year growth — expressed in terms of GVA, turnover, and total number of employees (figures 4.12 to 4.14) — has tended to differ dramatically. The annual data for each region often forms a mirror image of the other, with accelerating growth in one region and a commensurate deceleration of growth in the other. This historical trend is illustrated in the GVA growth experienced by the two regions at a relatively modest scale between 2012 and 2016, and then very dramatically in 2020 and 2021.

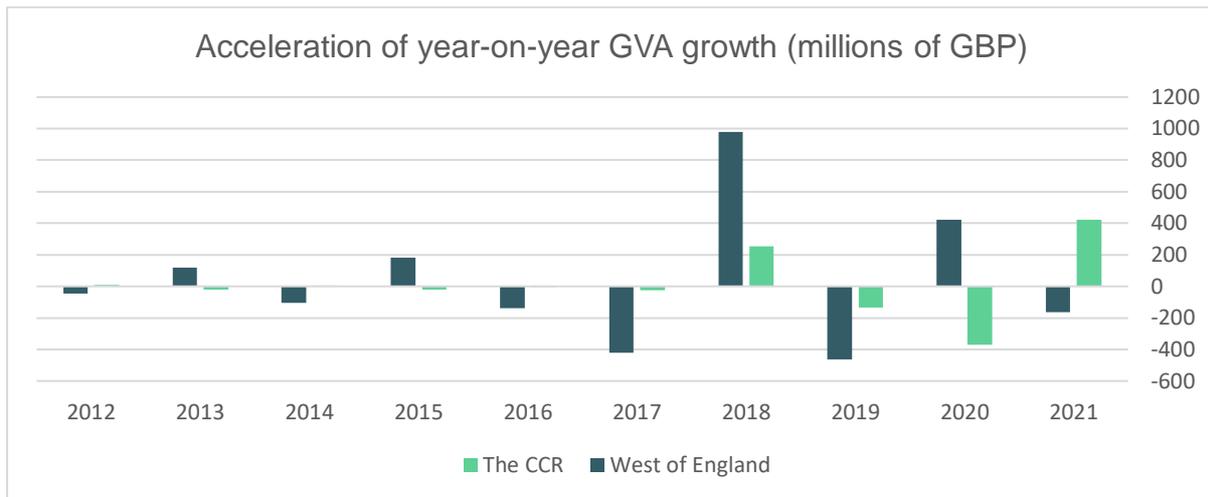


Figure 4.12. Acceleration of year-on-year GVA growth

There are (at least) two possible explanations for this. One is that these trends are caused by the project-based business models that underpin sectors such as film and television, with a large-scale production in Cardiff likely to draw staff and resource away from Bristol (or vice versa) for the duration of that production. Given the complementary strengths of the sectors in the two regions, even in film and television (Bristol in natural history, Cardiff in high-end drama and bilingual production), this seems unlikely.

What seems more plausible is that this reflects the contrasting sectoral strengths in the two regions, and, hence, differential growth-rates within creative industry sub-sectors. These contrasting acceleration and deceleration trends provide strong support for the development of a supercluster approach, which would aim to ensure that both regions grow harmoniously alongside each other, rather than either region routinely growing at the expense of the other.

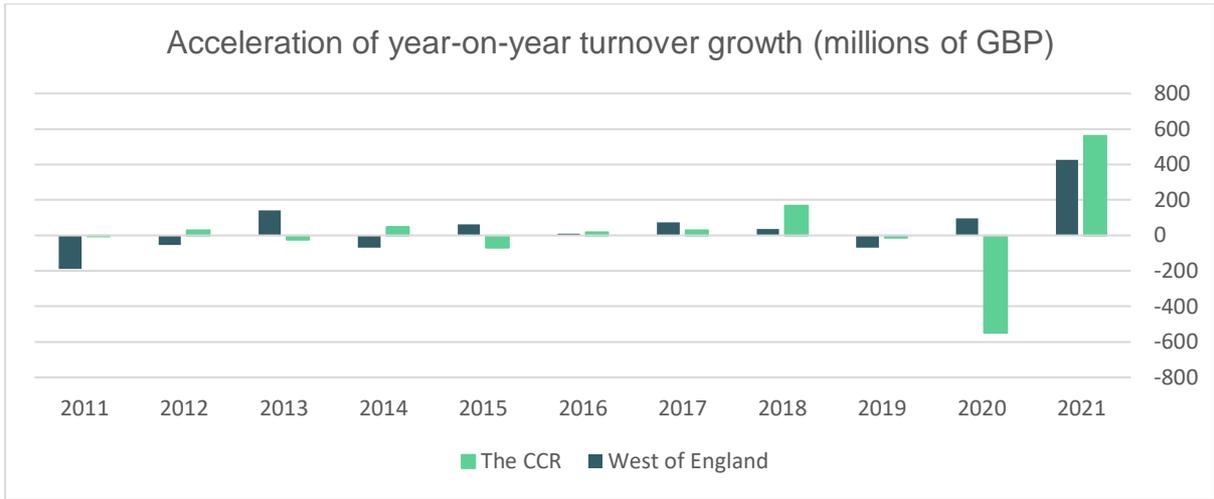


Figure 4.13. Acceleration of year-on-year turnover growth

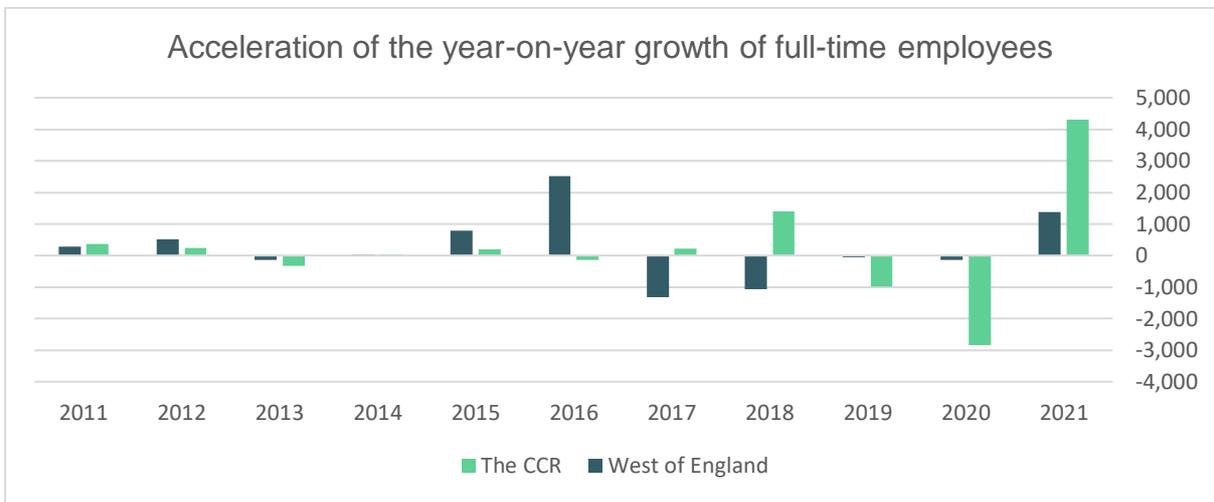


Figure 4.14. Acceleration of year-on-year growth of full-time employees

5. City-level data deep dive

As well as collecting regional data, we also collected data for the cities of Bristol and Cardiff. Here the trends broadly reflect those of the wider city regions, with both cities experiencing strong growth between 2009 and 2021, and Cardiff experiencing a more immediate commercial shock from the Covid-19 pandemic.

i. Economic trends

A comparison of the two cities removes the 'Bath effect', revealing two creative economies that are very similar in scale, generating an almost identical GVA and employing a similar sized workforce. In 2021, this was £1.68 billion for Bristol and £1.46 billion for Cardiff, with 22,700 creatives in full time employment in Bristol in 2021 and 21,700 in Cardiff.

One of the main differences between the two cities is that in 2021 Bristol had a significantly higher number of creative businesses than Cardiff. Many of these are small and micro-businesses. Cardiff-based creative businesses, whilst still small overall, tend to be larger, employing more workers and generating a higher wage bill as a result. Figure 5.1 shows that the number of businesses in Bristol overtook Cardiff between 2009 and 2011, and grew at a significantly faster rate until 2020, with Cardiff closing the gap in 2021.

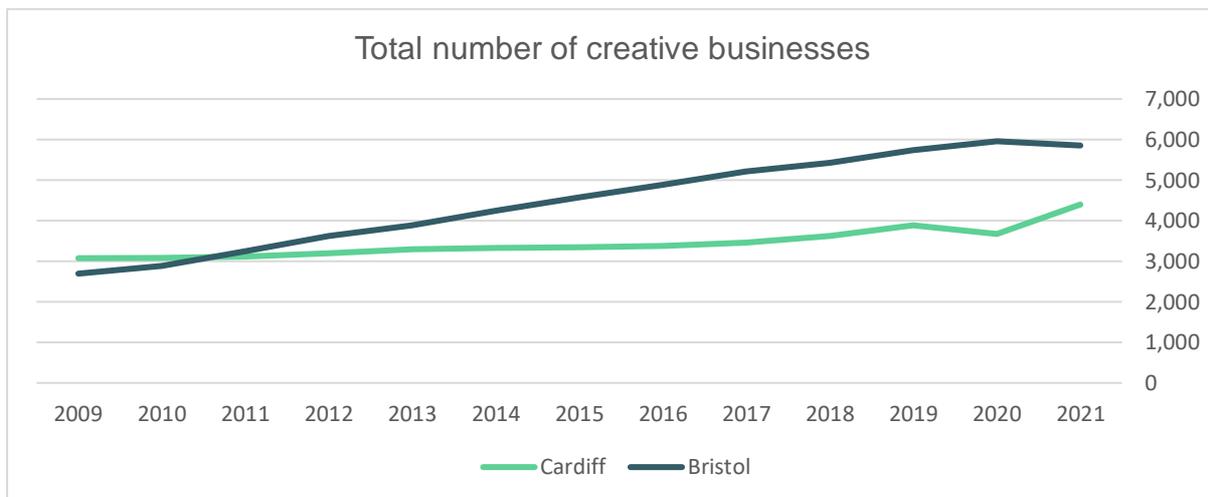


Figure 5.1. Total number of creative businesses

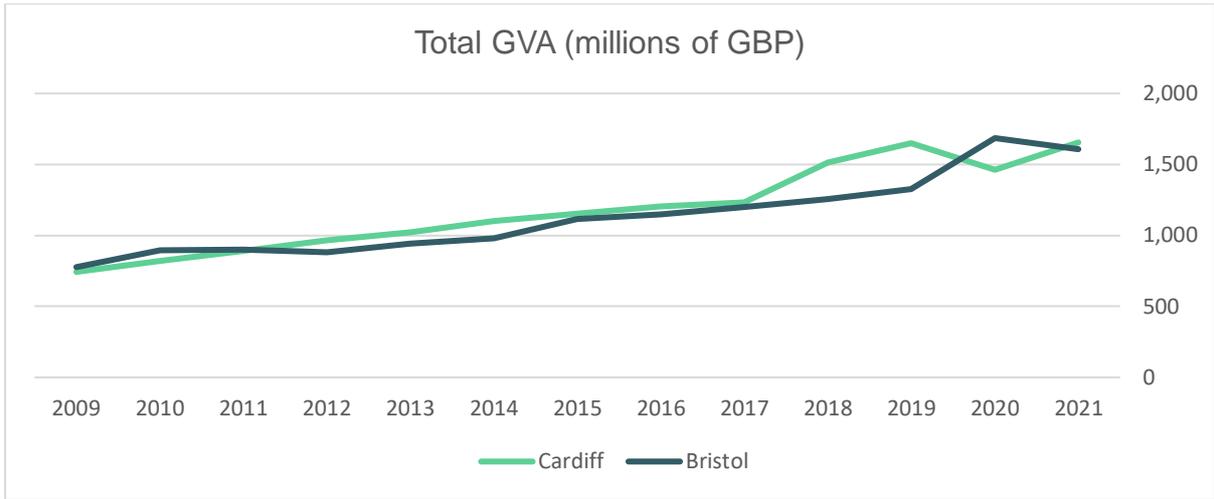


Figure 5.2. Total GVA

GVA figures (Fig. 5.2) show similar overall growth in the two cities over the 12-year period.

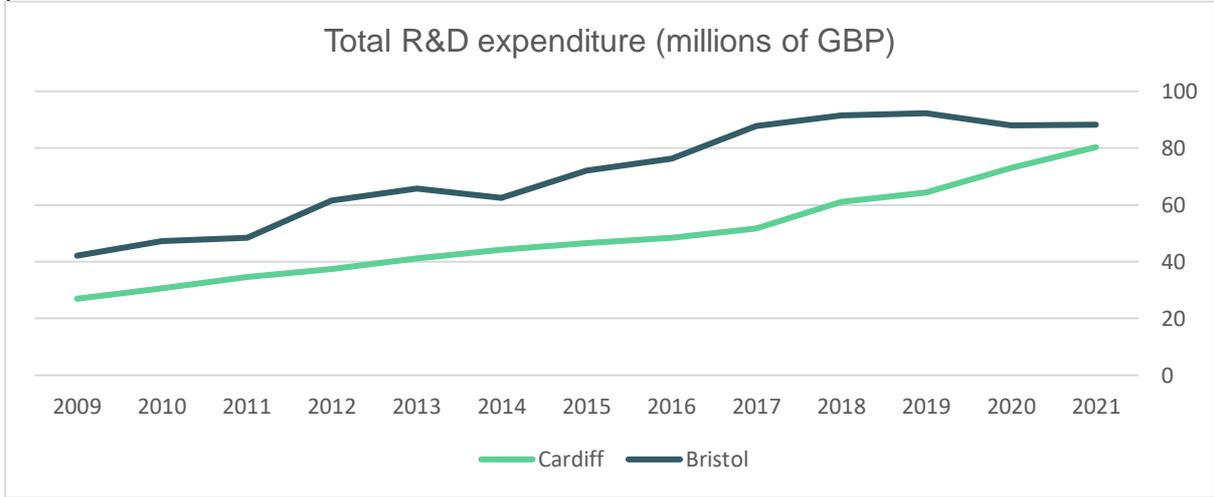


Figure 5.3. Total R&D expenditure

R&D spending in the two cities (figure 5.3) reflects broader regional trends, with similar growth rates until 2017, when we see a slow-down in Bristol’s growth rate and an increase in Cardiff. It is notable that the Covid-19 dip seen in other economic data in Cardiff (such as in figures 5.4 and 5.6) is not reflected in R&D spending, which increases significantly in Cardiff during the Covid and post-Covid period.

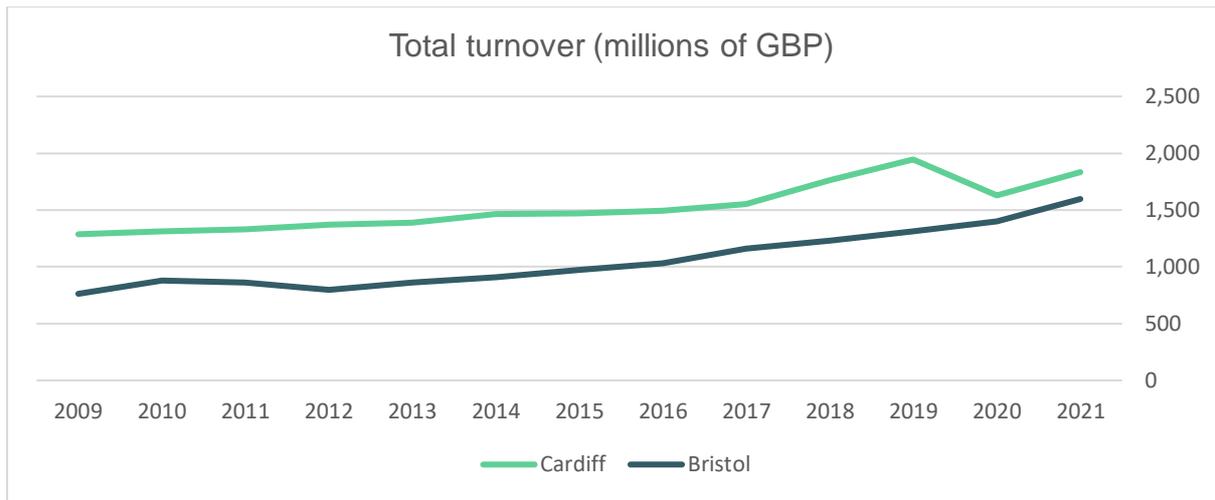


Figure 5.4. Total turnover

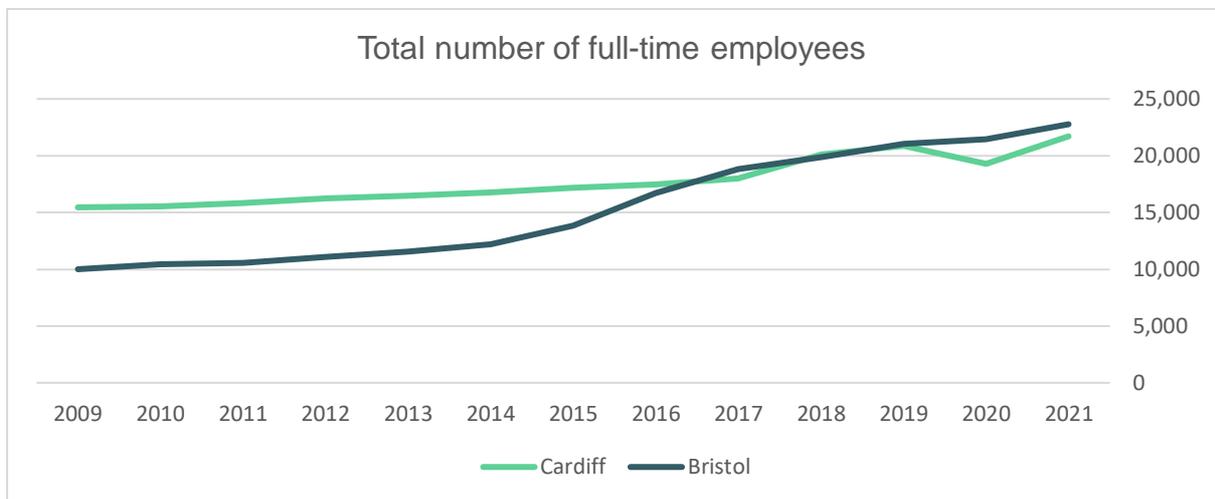
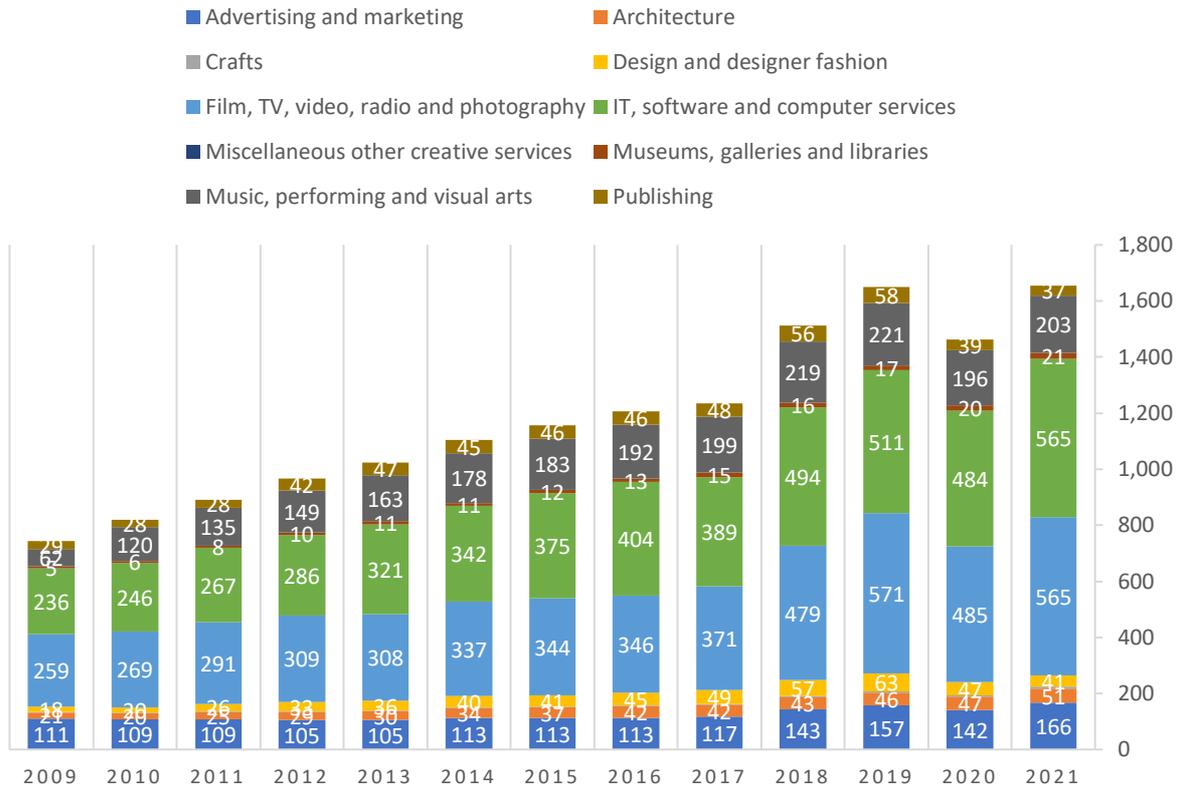


Figure 5.5. Total number of full-time employees

ii. Subsector breakdowns

The subsector breakdowns of GVA and number of employees remove the impact of Bath's publishing industry. The city of Bristol is dominated by IT, software, and computer services. The strength of Cardiff's film and television sub-sector is even more pronounced in Cardiff than the CCR, with the city experiencing particularly high growth in this sub-sector from 2018.

CARDIFF TOTAL GVA (MILLIONS OF GBP)



BRISTOL TOTAL GVA (MILLIONS OF GBP)

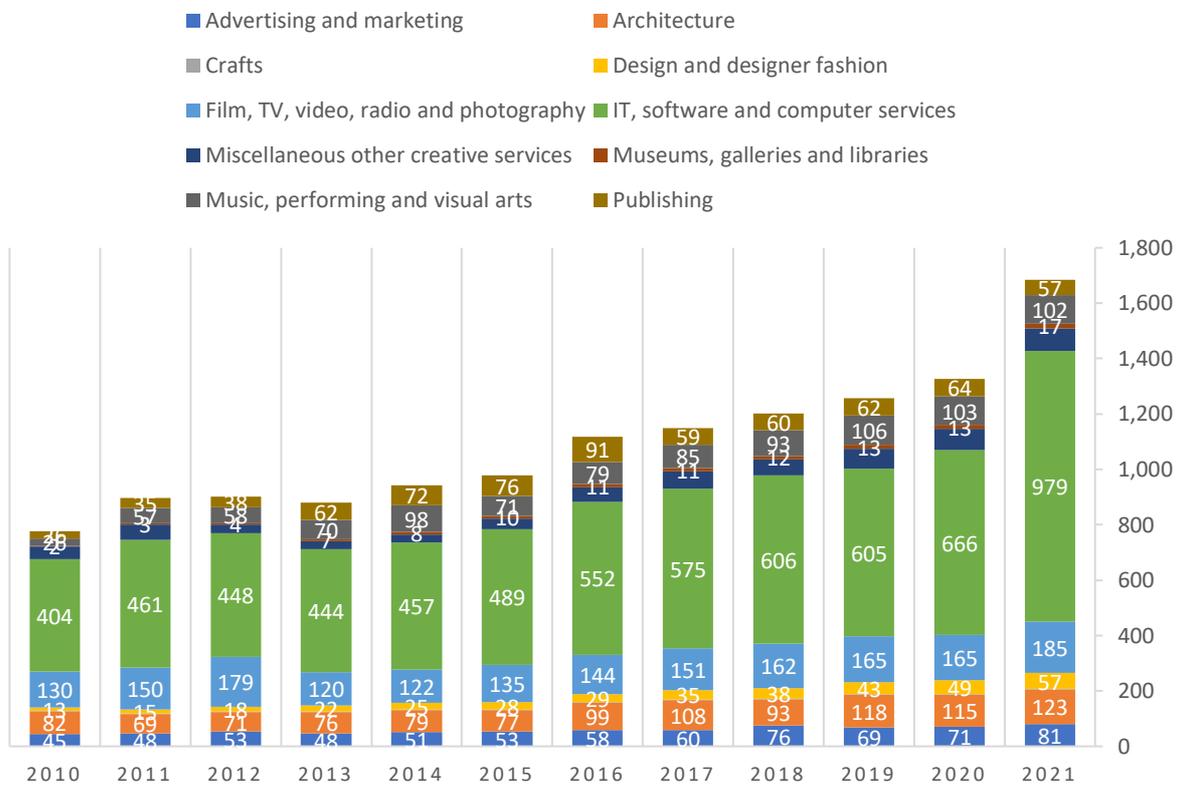
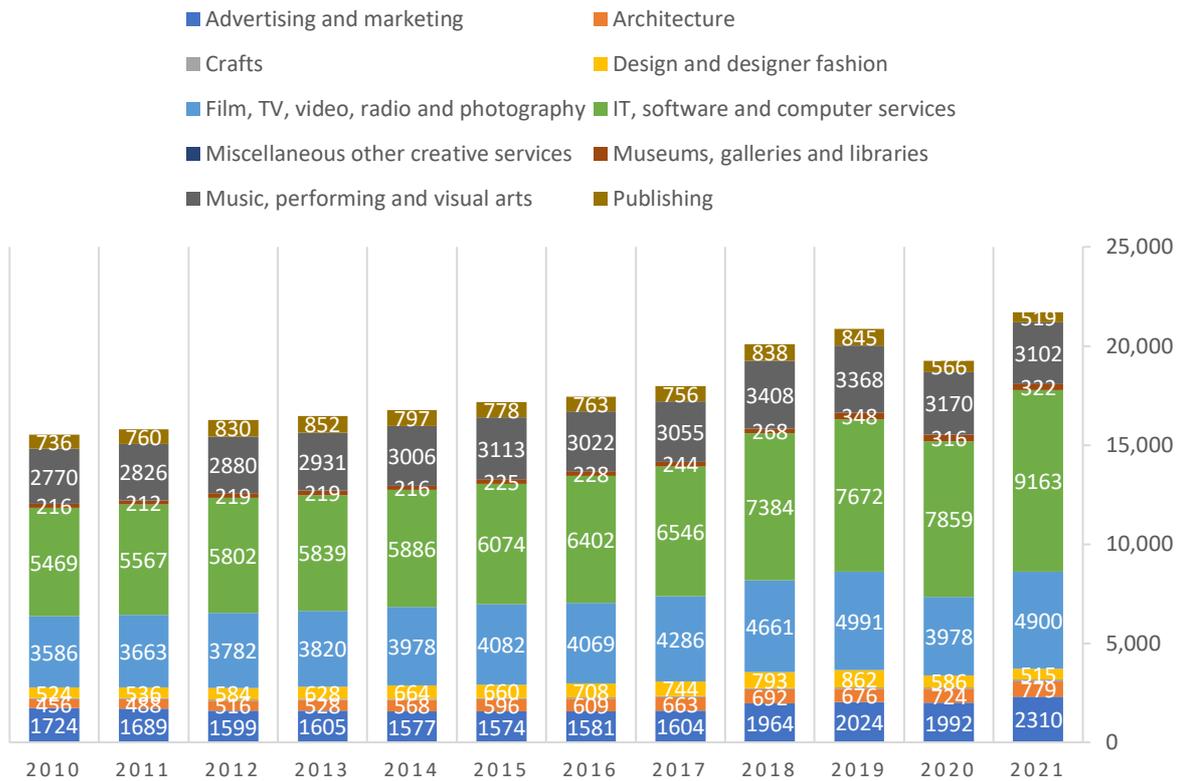


Figure 5.6. Total GVA by creative sub-sector

CARDIFF TOTAL NUMBER OF FT EMPLOYEES



BRISTOL TOTAL NUMBER OF FT EMPLOYEES

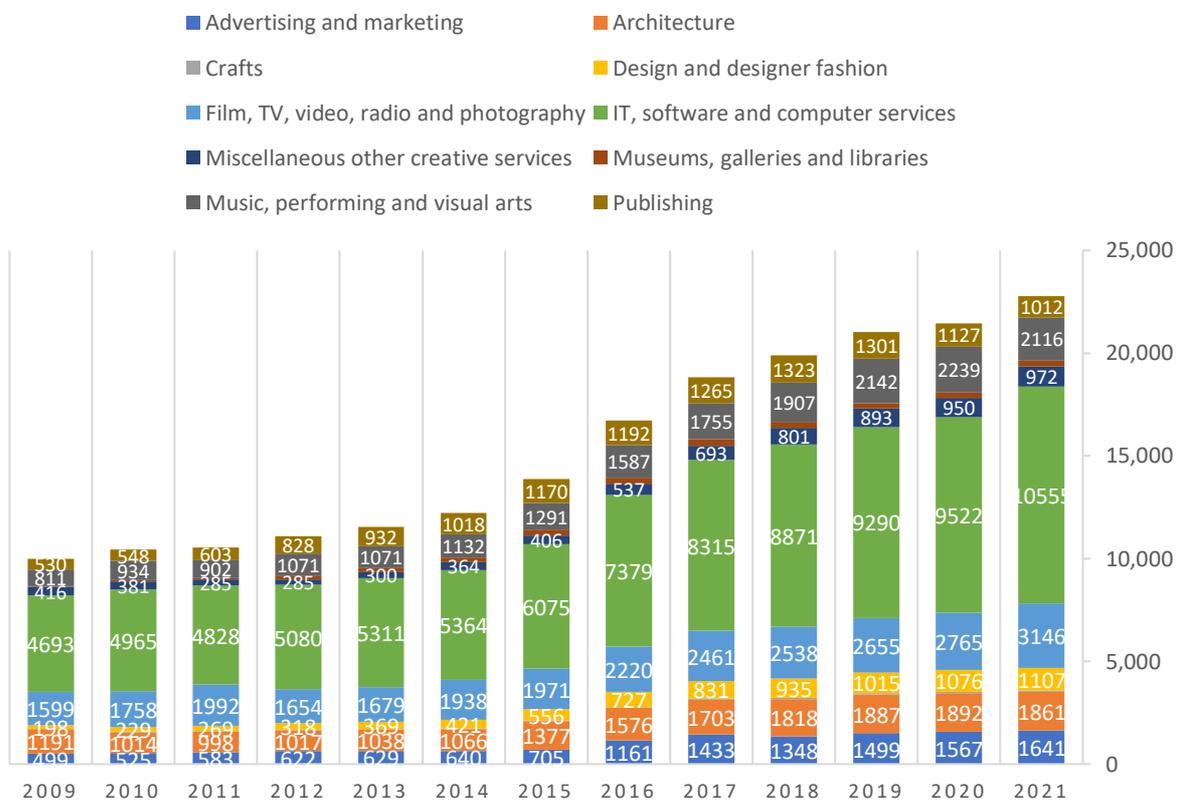


Figure 5.7. Total number of full-time employees by creative sub-sector

iii. Growth rate

The negative correlation between acceleration and deceleration of growth that is evident at the regional level is slightly less pronounced, albeit still visible, at the city level. There is some evidence of positive correlation in years of rapid GVA, turnover, and employee growth (which was also evidenced in the regional data). However, figures for year-on-year turnover growth still broadly reflects the trend of accelerated growth in one city coinciding with deceleration in the other city.

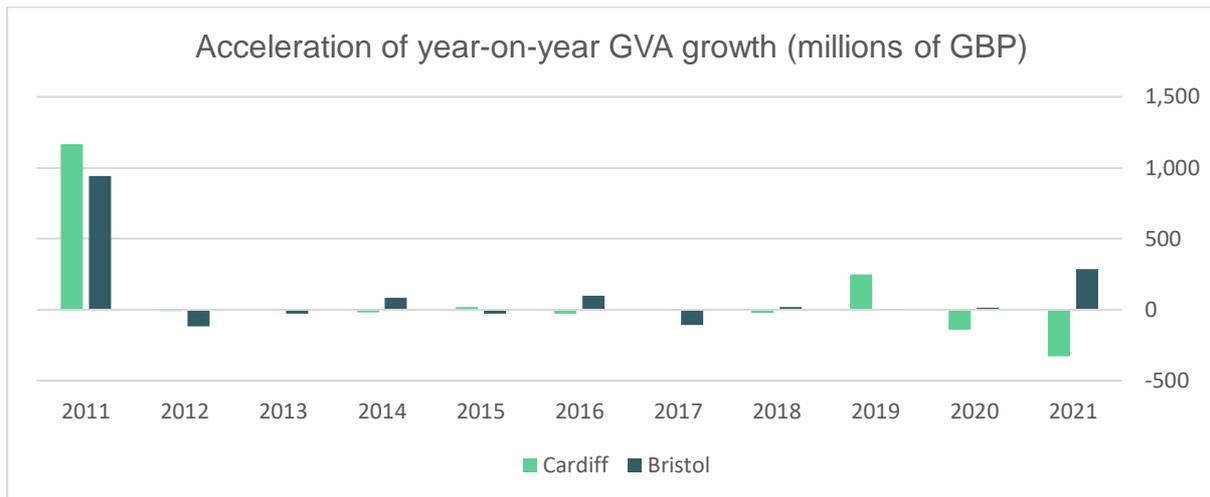


Figure 5.8. Acceleration of year-on-year GVA growth

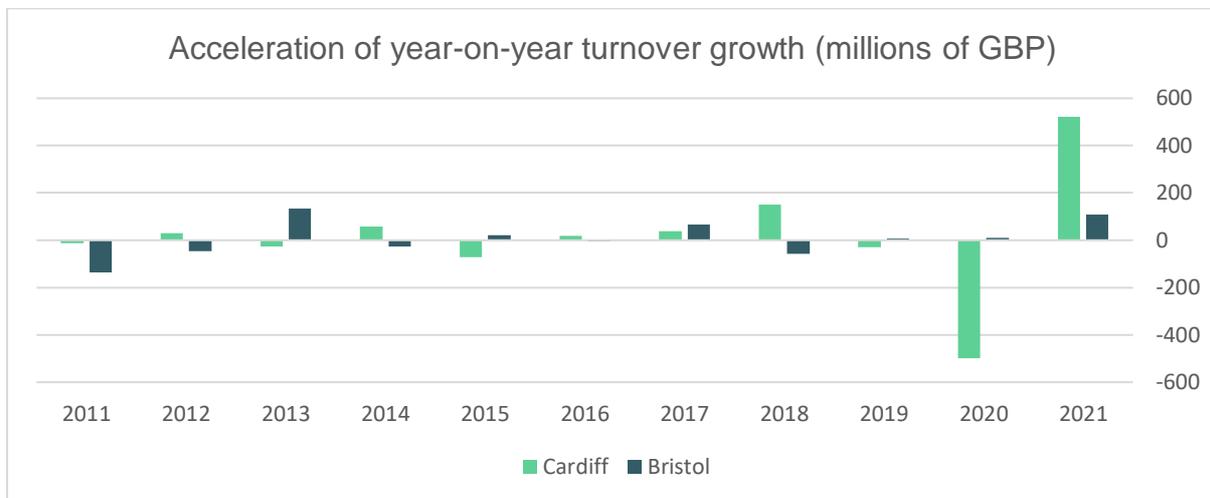


Figure 5.9. Acceleration of year-on-year turnover growth

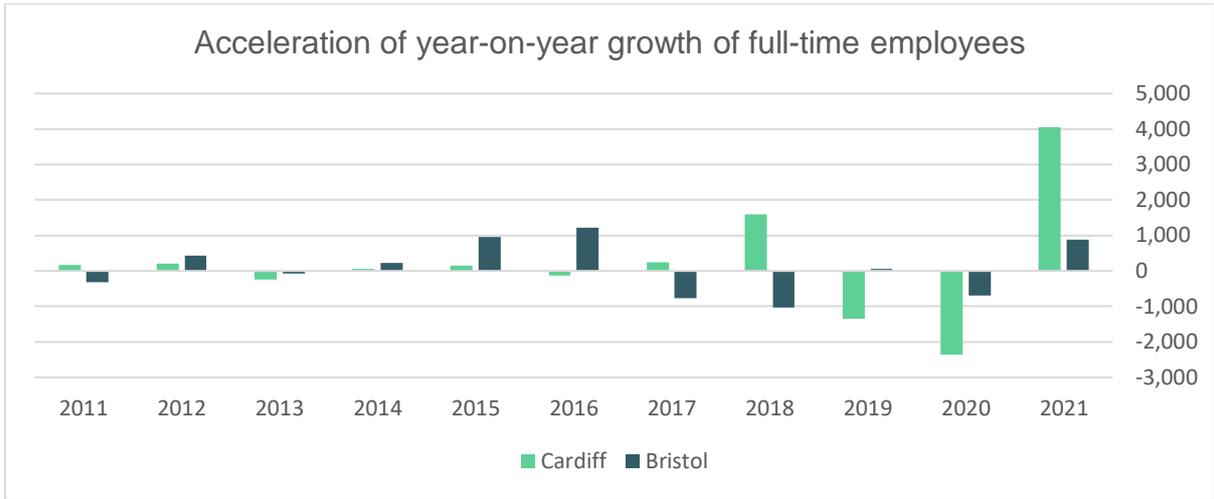


Figure 5.10. Acceleration of year-on-year growth of full-time employees

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