Joining the Dots –

Understanding the value generation of Creative Networks

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EXECUTIVE SUMMARY

Creative networks are a relatively recent, evolving phenomenon. To date there has been little interrogation of creative networks from either a policy or academic perspective. This research is designed to enable a better understanding of these networks and their role in supporting the creative industries.

The growth of the creative industries has impacted most towns, cities and regions in the UK, bringing place-based economic, social and cultural benefits. Creative networks create value which enhances the development of the creative industries in places across the UK. While recognition and support from policy-makers is increasing, it remains peripheral to public funding in the creative industries. This report provides evidence that creative networks are of significant importance to industry, policy and academic stakeholders, making a case for their playing a more central role in public policy.

Our research suggests that the value contribution made by creative networks is extensive, providing a key central node for a range of stakeholders with an impact felt far beyond the local creative industries. Despite their contribution, creative networks face a number of key challenges. These include a lack of resources (time and money) with most identifying uncertainty of funding and workload as their main obstacles. Other challenges include a lack of external understanding of the role, value and status of creative networks in the wider ecosystem.

We used the quadruple helix approach to consider groups of actors and identify the relationships and value flows between groups. This proved particularly useful in identifying the many actors involved with creative networks, allowing us, for the first time, to assess the value flows and contribution of creative networks with all stakeholders. This revealed both the breadth and depth of value flows and signalled the overall contribution of creative networks to the ecosystems (including the wider economy) of the places they serve. These are not fully appreciated and understood by all stakeholders; an issue intensified by the current economic environment. We hope our recommendations will go some way in addressing this.

INTRODUCTION TO THE REPORT

This report starts from two premises. First, devolved and local Governments in the UK have increasingly recognised the sustained growth and contribution of the creative industries to local economies over the past 20 years. Data illustrates that the creative industries are one of the largest contributors to growth in the UK economy (DCMS, 2016; The Work Foundation, 2007).

Second, recognition of the importance and growth potential of the creative industries has led to an increase in support and policy commitments, with the development of a range of creative and cultural industry bodies and agencies. Whilst some version of these organisations can be found in most sectors, **the creative industries, which is based on clusters of small enterprises and a large freelance workforce, has seen the emergence of a more specific type of organisation with particular characteristics, here-after referred to as "creative networks".** These organisations are often bottom-up, place-based networks offering a range of support and enabling services to the local creative industries (see the full definition below). Creative networks are not new to cities and regions in the UK, but there have been a range of new initiatives established in recent years, and it would appear that the interest in and need for such creative networks is still growing.

Despite the growth in number and scale of creative networks over the past 10 to 20 years there is a significant gap in both academic and policy analysis and understanding. This raises questions about how such creative networks function and how they create value for the creative industries. **This research maps the similarities and differences among UK creative networks and uses value network analysis to explore how creative networks generate added value.**

The report is structured as follows. First, we introduce the background to this research, investigate on-going literature discussions and explore how far creative networks can be successful tools for the development of the creative industries in theory. Second, we define creative networks as study objects based on the literature and establish a framework for analysis using a survey and workshops. Third, we discuss our research findings, exploring the similarities and differences between creative networks and detail their roles in value generation. Finally, we summarize our findings and develop recommendations for the future. This report is designed for:

- Practitioners – who are keen to compare and contrast operating environments, similarities, challenges and opportunities of creative networks.
- Policymakers – to inform their decision making around future network engagement, support and funding. In addition, new knowledge and understanding in this area would enable the application of policy initiatives around creative networks.
- Researchers – to contribute to the literature around the development of sector specific networks and their value.

RESEARCH BACKGROUND

Creative industries have become the most important driver for growth in the UK economy

The rapid growth of the creative industries in the UK has been widely reported over the past 20 years. At the latest count, the UK creative economy accounted for 2.6 million jobs, roughly one in twelve (or just over 8%) of the UK total (Creative Industries Council (CIC), 2021). The creative industries in the UK have grown at a faster rate than the economy as a whole, increasing by 34% from 2010 to 2015 (DCMS, 2016). Recent figures published by the Department for Culture, Media and Sport show that the UK's creative industries contributed more than £111 billion to the UK economy in 2018 (DCMS & Adams, 2020). This equates to a contribution of almost £13 million to the UK economy every hour. NESTA describes **the creative industries as "one of the most important contributors to the UK economy",** growing more than five times faster than the economy as a whole (Higgs et al., 2008). In recent years, their contribution to the UK economy is greater than the automotive, aerospace, life sciences and oil and gas industries combined (Creative Industries Federation, 2018).

Policy makers in the UK increasingly recognise the importance of the creative industries focussing on more place-based approaches

While the creative industries have traditionally been side-lined in UK industrial policy (often seen as occupying the "cultural" rather than the "economic" sphere), their economic value is increasingly recognised at all levels of UK Government. In 2018 the UK Government's Industrial Strategy[1] recognised that the creative industries are an "undoubted" national economic strength and committed to a sector deal, aimed at putting the UK at the forefront of emerging technologies through creative industries support. Additionally, in response to widening gaps in prosperity between London and the Southeast and the rest of the UK, there has been a focus on re-balancing local economies (referred to as the "levelling up agenda"), creating a motivation for development of local and place-based industries. This has produced a growing awareness on local place-based initiatives and strategies which highlight priority sectors in regions that offer the potential for economic growth and employment.

The creative industries regularly feature as a priority sector in these local initiatives. Some examples include the Cardiff Capital Region's plan to Consolidate and Expand a Creative Capital Region[2] and the West of England Combined Authority (WECA) programme[3] to develop the 'Creative Workforce for the Future'. On a local level, these new policy approaches have led to an increasing awareness of the importance of existing creative networks, and in some cases policy efforts towards the creation of new ones.

[1] https://www.gov.uk/government/publications/creative-industries-sector-deal/creative-industries-sector-deal-html

[2] https://www.cardiffcapitalregion.wales/investment-opps/consolidating-expanding-a-creative-capital-region/

[3] https://www.westofengland-ca.gov.uk/new-creative-workforce-future/

Why are creative networks created to support the creative industries?

Alongside these programmes and policy pledges there has been growth in **academic and policy research on the creative economy, recognising the importance of (social) networks** and their contribution to sustaining and developing the creative industries (Felton et al., 2010; Pratt, 2013). As Clare (2013) puts it: "creative firms are embedded in place, where the importance of […] social networks lead to tight geographic clustering", with proximity and place-based networking playing an essential role. The NESTA Manifesto for the Creative Economy (2013)[4], for example, highlights the importance and value of "building new peer networks where none exist and supporting those that do exist" as one way of developing the creative economy. The importance of creative networks is a response to the highly dispersed make-up of the creative industries:

- Creative industries are predominantly made-up of small and micro-SMEs. In the UK, 95% of creative businesses employ fewer than ten people and 89% employ fewer than five people (Creative Industries Federation, 2018). The lack of large corporate structures means that creative workers will rely upon networks to innovate, collaborate and develop peer networks.
- This is compounded by the significant dependence of the sector on freelancers and self-employed workers. The Creative Freelancers report (2017) reveals that in the creative industries 47% are self-employed, compared to 15% across the whole workforce in the UK.
- The creative workforce is also dependent upon project-based, contractual work and subject to the volatility of market economies in a fast-moving sector with high levels of digital disruption (Felton et al., 2010; McRobbie, 2002). Self-employment and job insecurity are common, and the experience of risk is intrinsic to those working in the sector (Brown et al., 2010). For these reasons, networks have been described as "crucial" for supporting those working in the creative industries (Lee, 2013), necessary for personal, professional and economic development.

According to Kong (2005), the economic precarity and dispersed nature of the creative workforce can be "countered by relationships of trust, a form of social solidarity" managed by networks of social relations. Networks support knowledge, creative energy and industry development, but also function as a method for finding new projects and work, managing unease related to job insecurity and enabling new cooperative endeavours (Felton et al., 2010).

This study builds on these research insights and aims to develop an understanding of creative networks in more detail – what they are, how they work, and how they create value.

[4] https://www.nesta.org.uk/report/a-manifesto-for-the-creative-economy/

CREATIVE CARDIFF
CAERDYDD CREADIGOL

INVESTIGATING CREATIVE NETWORKS

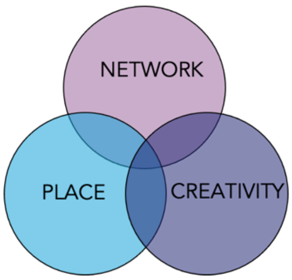
Defining and conceptualizing creative networks

While definitions of the creative industries vary across regional jurisdiction and national boundaries (using different concepts like creative and cultural industries, creative sectors and so forth), we used the definition outlined in the Government's 2001 Creative Industries Mapping Document, namely "those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property" (DCMS, 2001).

Academic and policy work considers the make-up of creative industries "networks" in a variety of different ways. Concepts related to creative networks include creative cities (Florida, 2004), creative ecosystems (Mortati & Cruickshank, 2011), creative knowledge exchange hubs (Moreton, 2016), creative clusters or agglomerations (Lazzeretti et al., 2009; Porter, 1998), cultural hubs (Hesmondhalgh & Pratt, 2005), communities of practice (Goodwin, 2009), social networks (Clare, 2013), and creative places (Gibson & Klocker, 2004).

At their core, all these different approaches embrace the idea that links and ties between creative industries actors (in certain places) create benefits for creative workers and organisations (Komorowski & Picone, 2020). Participating in these different kinds of local networks creates, for example, more innovative capacity, knowledge exchange, new collaborations, new work relations, etc (see also above). Generally, the term network can be described as a collection of "actors" (people, departments or businesses) and their strategic links (family, community, finance or businesses alliances) with each other (Johnsen & Johnsen, 1999).

The creative networks in this study include **organised networks (sometimes as their own legal entity, sometimes as part of another organisation), that have dedicated people working to support the creative network to create collaboration and/or growth in the local/regional creative industries**. Our focus is on broad, place-based initiatives with the ability to bring people together in real time in real places, rather than specific sectoral networks (such as the Royal Institute of British Architects) or agencies with national remits (such as Creative England, Creative Scotland, Creative Wales or UK Arts Councils).



The creative networks in our study are all:

- ✓ City / town / regional networks;
- ✓ Working with multiple creative industries sectors;
- ✓ Rooted in and working for a place;
- ✓ In operation for a minimum of 1 year;
- ✓ Working for both creative individuals and organisations.

Creating a value network for creative networks

We have adopted a value network approach to explore how creative networks create value and therefore contribute to a city, town or region's creative industries' strength. This enables us to identify types of network links and network actors created by creative networks and establish a typology of value creation.

The network analysis approach relies on the visual representation of flows and actors in networks. While the framework was influenced by the work of Porter (1985) and Wirtz (2011), the particular characteristics of creative networks and the creative industries (see above) means redefining the traditional value chain and the parameters of the business model approach. Some of the distinguishing features of the creative industries come from the mode of organization of the production of culture. They break down the traditional analytical divisions between public (traditionally cultural organisations receiving public subsidy) and private (commercial creative companies), formal and informal, for- and not-for-profit activities (Caves, 2000; Deuze, 2011; Pratt & Jeffcutt, 2009; Vogel, 2008). Our network visualisation pays close attention to the distinctive value generation dynamics in creative industries creating a specific value network with the creative networks as connector.

We aim to visualise the possible actors and flows to identify their connectedness, the strength of their networks and possible embeddedness in their geographical creative industries. **This can reveal both strengths and gaps that can guide creative network growth and best practice for the creative networks themselves**, as well as for policy makers and practitioners. The goal is to "join the dots" of creative network value creation.

Mixed-methods data collection

This research adopts a **mixed-methods approach, bringing together desk research, survey data and workshop data**. Our definition of creative networks (outlined above), informed desk research to identify creative networks in the UK. We then invited these networks - through their network managers/coordinators or those working for the network - to participate in a survey. The aim of the survey was to provide a more detailed map of UK creative networks; find out how, why and where they exist; and assess their differences and similarities based on 6 criteria (inspired by Komorowski, 2016, 2019).

The 6 criteria for creative network mapping:

1. Location and scale where the creative network operates;
2. Scope and scale of the creative network;
3. Development (path-dependency) of the creative network;
4. Organisational structure of the creative network;
5. Services and ambitions of the creative network;
6. Challenges of the creative network.

We collected data from the 22 UK creative networks identified through desk research. 15 of these then took part in a survey (from July – September 2020 via Qualtrics), and 15 (see Table 1) in a subsequent workshop designed to co-create a new framework for understanding value generation of creative networks. The workshop invited workshop participants to share their insights about how value is generated, gathering in-depth data (via the Miro tool) about the functioning of the networks.

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FINDINGS PART 1: MAPPING CREATIVE NETWORKS

Table 1 details **22 creative networks in the UK, covering 21 cities/regions** (Bristol has two networks that fit our definition). While this is not necessarily an exhaustive list, we are confident it includes the majority of established creative networks that meet our criteria and are located in the UK.

Name of creative network	Location	Network scope	Network size (number of organisations / freelancers involved)	Year founded	Workshop attendance	Survey respondent
Artis Community	Rhondda Cynon Taff	Creative industries	100-200	2018	✓	✓
Bristol Creatives	Bristol	Visual & applied artists	900-1,000	2006	✓	✓
Bristol Creative Industries	Bristol	Creative industries	500-600	2005	✓	✓
Creative Bath	Bath	Creative industries	600-700	2008	-	✓
Creative Cardiff	Cardiff	Creative industries	3,000-4,000	2015	✓	✓
Creative Carmarthenshire	Carmarthenshire	Film / video, radio / television & music	50-100	2018	✓	✓
Creative Clyde	Glasgow, Scotland	n.a.	n.a.	n.a.	-	-
Creative Dundee	Dundee	Creative industries	200-300	2013	✓	✓
Creative Edinburgh	Edinburgh, Scotland	Creative industries	4,000-5,000	2001	✓	✓
Creative Gloucestershire	Gloucestershire	n.a.	n.a.	n.a.	-	-
Creative Kernow	Redruth	Creative industries	2,000-3,000	1995	✓	✓
Creative Lancashire	Lancashire	Creative industries	2,000-3,000	2004	-	✓
Creative Leicestershire	Leicestershire	Creative industries	n.a.	n.a.	✓	-
Creative Manchester	Manchester	Creative industries	100-200	2018	✓	✓
Creative North Wales	Caernarfon (West Wales)	Digital creative	100-200	2012	✓	✓
Creative Quarter Nottingham	Nottingham	Creative industries	200-300	2012	✓	✓
Creative Stirling	Stirling	Creative industries	n.a.	n.a.	-	-
Creative Swindon	Swindon	n.a.	n.a.	n.a.	-	-
Culture Central	West Midlands / Coventry	Arts & culture	n.a.	n.a.	✓	-
Culture Northern Ireland	Derry/Londonderry	n.a.	n.a.	n.a.	-	-
Sheffield Creative Guild	Sheffield	Creative industries	700-800	2016	✓	✓
Wired Sussex	Brighton	Media & createch	1,500-2,000	2007	✓	✓
Total identified: 22 creative networks	Number of cities: 21		Total members: >18,000		15	15

Table 1: Overview of creative networks identified.

Location of creative networks

Our research shows that creative networks can be found all over the UK and are reasonably well distributed across the nations and regions (see Figure 1). As we might expect, most (65%) are located in large urban areas, although, as Mommas (2004) points out, creative networks can also be found in smaller cities and sub-urban areas.

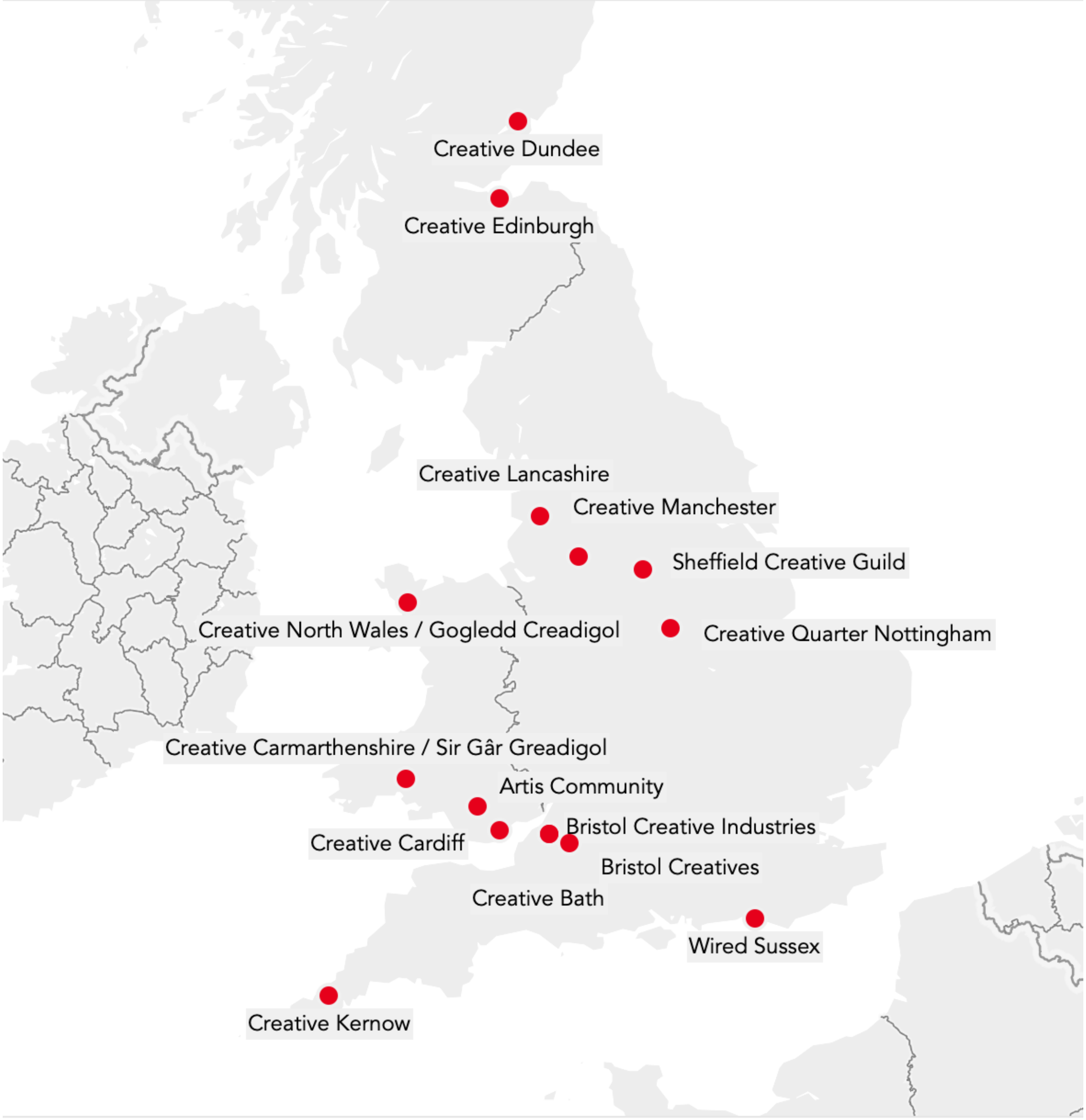

Figure 1: Geographical distribution of surveyed creative networks.

Scope (sector focus) of creative networks

The majority of creative networks (71%) serve the broad creative industries. The remainder, such as Wired Sussex or Bristol Creative Industries, have a focus on groups of subsectors, such as the digital, audio-visual (AV), music, tech, arts sectors (see Figure 2).

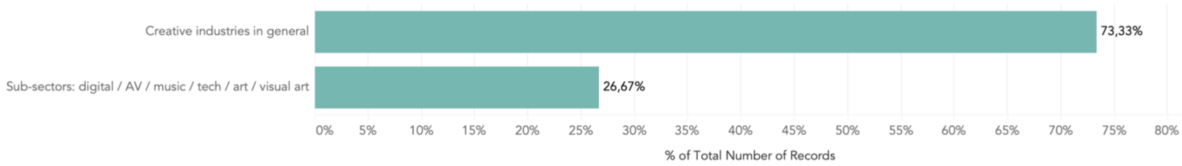

Figure 2: Sector scope of surveyed creative networks.

Scale of creative networks

Around half (47%) of the creative networks operate on a city level. This is highlighted in the names of the creative networks, who have adopted a similar nomenclature, suggesting a commonality of purpose (Creative Bath, Creative Cardiff, Creative Stirling etc.). A similar proportion of creative networks work on a regional level (40%). Less common are creative networks targeting international or local spaces (see Figure 3).

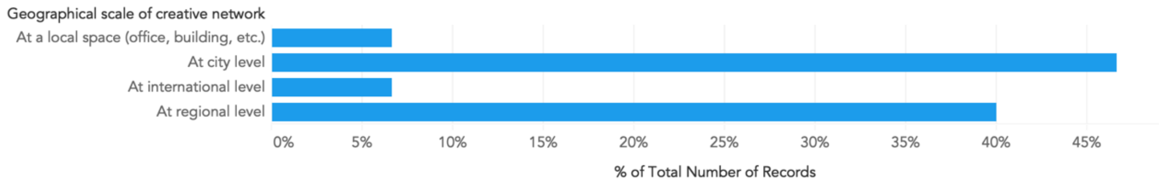

Figure 3: The geographical scale of creative networks.

The size of the network membership varied quite significantly. A third (33%) have more than 1,000 members, while around half (47%) involve fewer than 500 organisations / freelancers (see Figure 4). Membership numbers were dependent not only on the scale of operation, but how "members" were identified.

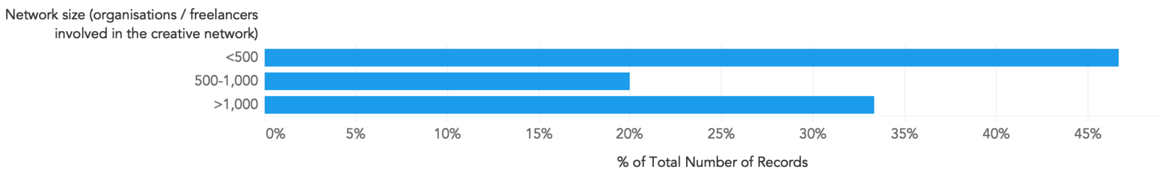

Figure 4: The network size of creative networks.

In total, **creative networks in the UK engage more than 18,000 creative businesses and freelancers (see Table 1). We estimate that this means that creative networks in the UK give access to about 6% of all creative businesses in the UK** (with a total of 284,400 businesses according to DCMS). We asked respondents to estimate how much of the total target sector in their geographical area their membership base reaches. A quarter claim to have comprehensive reach - estimating they include up to 90% of creative companies/organisations in their city/region. Around 40% of networks said that they would cover between 10-40%.

Development of creative networks

The number of UK's creative networks has grown steadily over the last 20 years, but the last 10 years has seen increased growth with most networks being younger than 8 years old (53%). We can identify two main growth periods: 2004-2008 and 2015-2018 (see Figure 5).

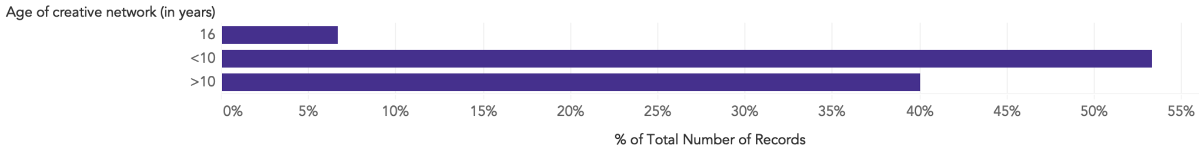

Figure 5: Age of creative networks.

Figure 6 looks at the main impetus for the network. A significant proportion - 40% of creative networks - were started with government / local authority involvement, suggesting a clear pattern of support from local government. The fact that only 20% were created by companies within the creative industries is indicative of the small size of most creative companies and suggests while they are beneficiaries (and keen to support and join networks), the sector itself is unlikely to have the capacity for network development. Other key initiators are universities or highly motivated individuals.

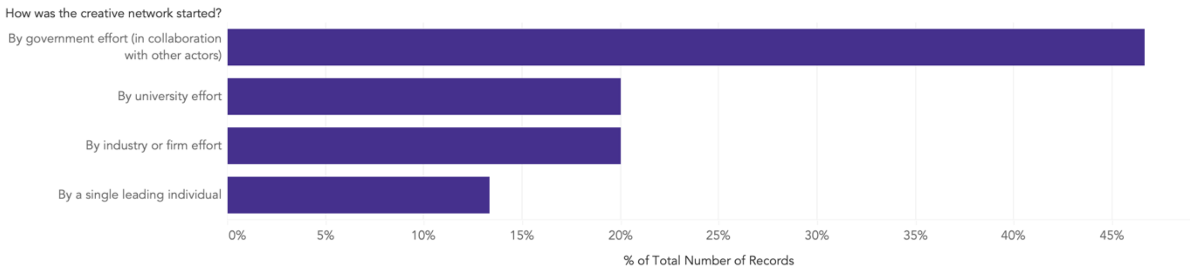

Figure 6: Organisations starting creative networks.

The structure of creative networks

In terms of organisational structure, the majority (80%) of creative networks are registered as non-profit. Some are attached to other legal entities (such as universities), or work as community interest companies, charities, or social ventures.

Creative networks have many similar characteristics to start-ups or micro-businesses, with around half employing 2-5 full-time employees. Several function without being able to employ a full-time person at all and only a few have enough revenue to employ more than 5 people (see Figure 7). If we compare this with the number of members they are supporting (over 18,000 - Figure 4 above), we can see that each employee is, in effect, supporting several hundred businesses and freelancers.

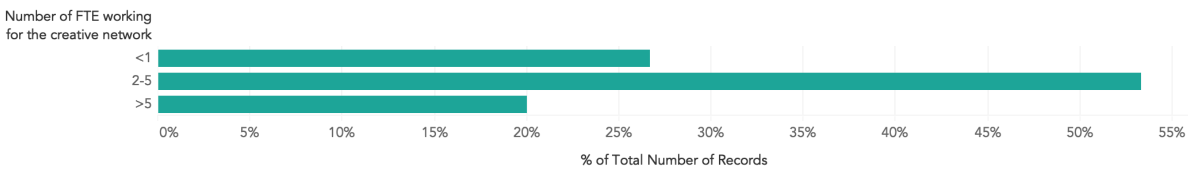

Figure 7: Number of FTE in creative networks.

The financing structure of creative networks

The main source of revenue for creative networks is public funding, with around 4 in 10 indicating that this is their main source of income. The other main income sources include project-related funding, membership fees and other earned income (see Figure 8).

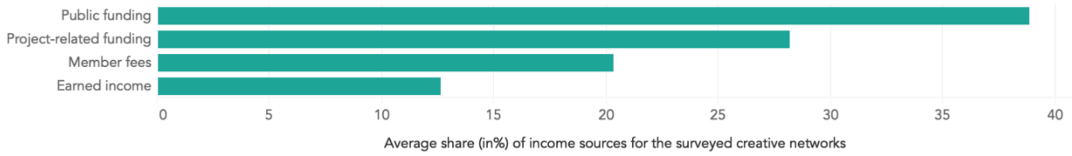

Figure 8: Income sources of creative networks.

We found an observable difference in income sources based on the size and age of creative networks. The more established the creative network, the bigger the share of earned income. While half of more recently established networks list public funding as their main source of income, only 3 in 10 of the more established networks do so. In short, most (7 out 10) of the more developed and established networks have developed greater capacity to rely on member fees and other earned income.

Goals and objectives of creative networks

When we asked networks to outline their main objectives (Figure 9) most identified two clear priorities: strengthening collaboration and creating awareness of and promoting their local creative industries. Other important objectives included influencing policy, providing training, creating new firms and enabling innovation (we discuss this in more detail below).

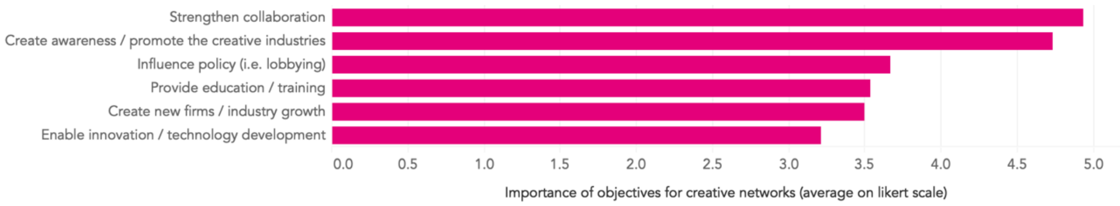

Figure 9: Objectives of creative networks.

Challenges of creative networks

The main challenges facing creative networks (see Figure 10 and text box) are a lack of resources – principally time and money, with most identifying uncertainty of funding and workload as their main obstacles. As we have indicated, the ratio of staff to network membership is often high, and this clearly limits the ability of networks to achieve their objectives. The third most pressing challenge – lack of external understanding - is less predictable, and suggests that the role, value and status of creative networks, for some, is still poorly understood in the wider ecosystem. Attracting new creative businesses as members is a core function, but less of a concern (indicating that potential members do understand their value).

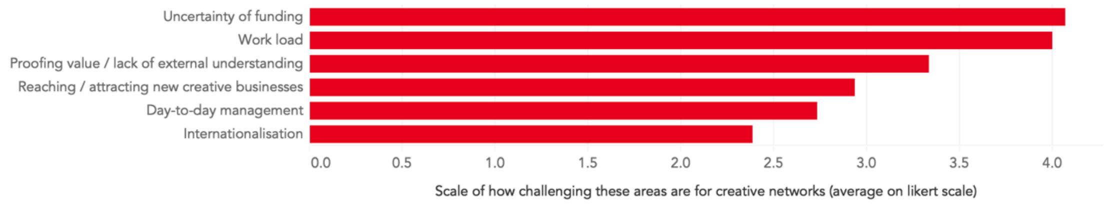

Figure 10: Challenges for creative networks.

WHAT ARE THE BIGGEST CHALLENGES FOR YOUR CREATIVE NETWORK?

"We are funded by a small membership fee, which is likely to be seriously impacted by CV-19 as artists and makers tighten their belts."

"Through the size of our team, the workload is a challenge and hinders us from achieving as much as we'd like to."

"The biggest challenge is securing future funding beyond the current streams."

"We are quite reliant on project funds from EU - time-limited of course and with no clear replacement yet."

"Finding time to do more."

"As a network - funding is always an issue."

"There is pressure from the city for our organisation and it feels we are pulled in many directions - tourism conversations/recovery planning for the city - it can be challenging to be visible/demonstrate our value to our community whilst supporting our city."

FINDINGS PART 2: VALUE GENERATION OF CREATIVE NETWORKS

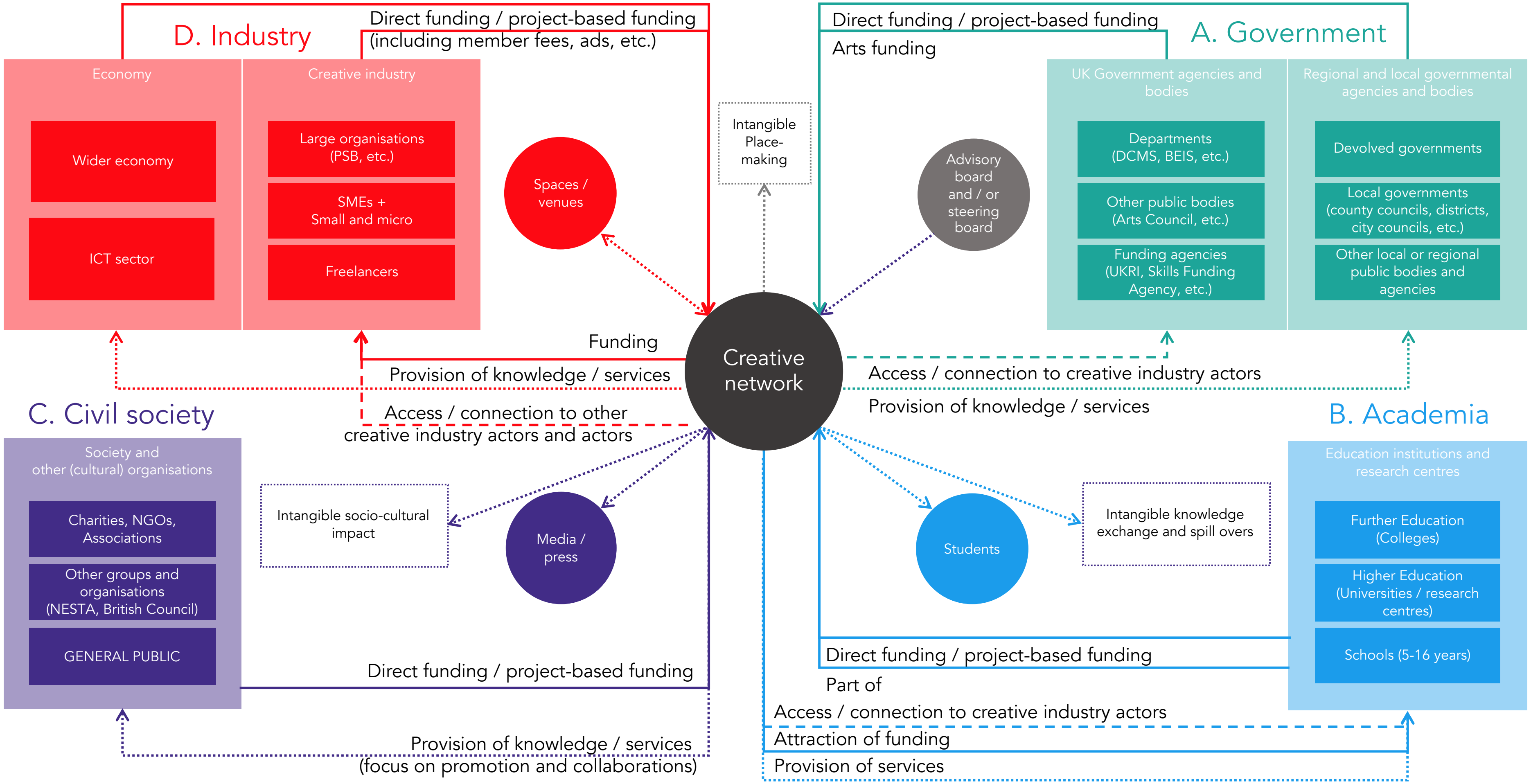

Figure 11: Value network of creative networks.

In this part of the report, we build on the findings of our survey from part 1 and draw from the more qualitative data of the workshops to outline the value network for creative networks. Figure 11 provides a visual representation of how creative networks create value and network connections. We define and describe the different actors and the flows between them in the following sections. A number of case studies from creative networks across the UK are presented in order to exemplify the value generation of creative networks.

Actors in the creative network value network

In order to identify the actors in the creative network value network, we have adopted a quadruple helix approach, which embraces different types of actors and then uses this to consider groups of actors and identify the relationships and value flows between the groups involved. The quadruple (or triple to quintuple) helix model has been developed and used in academic research around innovation and innovation systems (Carayannis & Campbell, 2012). This approach, which highlights knowledge exchange, localised specialisation and collaboration between actors, provides a valuable framework for analysis of creative networks, enabling us to understand both the relationships and the value created between the different actors. As Hasche, Höglund and Linton (2020) state, it is important to delve deeper into the micro aspects of relationships in the quadruple helix model to enhance our understanding of dynamic relationships. This approach therefore recognises four major actors in creative networks:

A. Government
B. Academia
C. Industry
D. Civil Society

A. Value generation between government and creative networks

Devolved and local governments in the UK have increasingly recognised the importance of the creative industries for local economies and, as the survey found, they are involved in setting up creative networks across the UK (see Figure 6 above). Governments (local, regional, national and UK) are therefore an essential actor in the value network of creative networks. This includes government agencies and bodies operating on a UK-level, including different Departments (DCMS, BEIS, etc.), other public bodies (e.g. Arts Councils) and funding agencies (e.g. UKRI, Skills Funding Agency). It also includes devolved, regional and local government agencies and bodies, local governments (e.g. county councils, districts) and other local and regional public bodies and agencies in the UK (see Figure 11).

The value generation between the government and creative networks is two-fold. First, governmental agencies and bodies are involved in and fund the activities of creative networks. This can include direct funding or through project-based funding. This highlights the dual role of creative networks, creating economic and cultural value (discussed below in more detail). Portsmouth Creates, for example, was formed in 2019, following recommendations from the (Arts Council England & Victorious Festival commissioned) Stephen Browning Report into the challenges, lack of cohesion and ambition of cultural outputs in Portsmouth. Portsmouth Creates leads a strategic partnership with HEIs, local authorities, housing associations and industry, to raise career aspirations, champion diversity and foster talent development across Portsmouth's communities and socio-economic divides.

Creative networks also generate value for the government by providing government bodies and agencies with knowledge and services, as well as access to other actors in the network. Creative Kernow, for example, delivers Cornwall 365, which is building a network of cultural players and tourism businesses to promote Cornwall as a leading destination for culture, the arts and heritage.[5] Creative North Wales provides a forum to lobby policy makers, by sharing information and data on the creative industries in their region via their audit and website, as well as arranging meetings with policy makers.[6] Creative Cardiff has partnered with the Arts Council of Wales on a project to commission creatives in the Cardiff Capital Region to support placemaking for the "Our creative place story map" featuring creatives from Wales.[7]

As these examples indicate, creative networks are often considered representatives for the local creative industries by policy makers, creating knowledge exchange and feed-back loops between government and creative industry players. One of the participants of the workshop summarised this role of creative networks as follows: *"We are often invited on to culture working groups, national working groups, city council, local authority working groups. […our work is] about creating shorter feedback loops between communities, freelancers and policymakers, partners, funding partners, the city itself and I think we do a lot of that."*

Case study 1: Creating value through governmental funding - Creative Edinburgh partners with Creative Informatics[8]

Alongside the University of Edinburgh, Edinburgh Napier University and CodeBase, Creative Edinburgh are partners on Creative Informatics. Through five key funding programmes and regular events, Creative Informatics enables creative individuals and organisations to explore how data-driven technologies can enhance their work. It is funded by the Creative Industries Clusters Programme managed by the Arts & Humanities Research Council as part of the Industrial Strategy, with additional support from the Scottish Funding Council. The programme is part of the City Region Deal Data Driven Innovation initiative.

B. Value generation between academia and creative networks

Education providers including universities, colleges, research centres, professional education institutions, lifelong learning initiatives and schools are often part of the creative network value network (see Figure 11). Like governmental bodies and agencies, academic institutions can also be a catalyst for creative networks through direct and project-based funding. Some creative networks are part of a university receiving all or part of their income from them.

[5] https://cornwall365.org.uk/

[6] http://creativenorth.wales/downloads/creative%20audit%20october%202018%20v2.pdf

[7] https://creativecardiff.org.uk/our-creative-place-story-map

[8] https://members.creative-edinburgh.com/event-3606365

Creative Cardiff, which is part of Cardiff University, is one example of this arrangement (see case study 2).

Creative networks can provide access to and connect the creative industries with academic institutions and connect researchers aiming to research and engage with creative businesses. This enhances collaboration around research, innovation and skills, with creative networks offering connections to students through work experience for students and skills development for creative companies. Creative Cardiff offers a range of ways for students in the city to gain work experience as Creative Producers to work on Creative Cardiff's events and engagement programme and paid through the Cardiff University Jobshop scheme. Creative networks can also be the attractor for funding for the university. An example of this is several research and engagement projects delivered by Creative Cardiff for the British Council.[9]

Case study 2: Creating value through collaborations with academia - Creative Cardiff building the Creative Economy Unit at Cardiff University

Creative Cardiff as part of Cardiff University is leading and has built a Creative Economy Unit (CEU) at the university. The initial remit of the CEU was to develop research-led engagement. It began by creating networks of researchers within the University and researching existing city/regional creative networks (in places like Bristol, Brighton, Edinburgh), building upon best practice in the UK and mapping the creative economy in Cardiff.[10]

C. Value generation between civil society and creative networks

Important civil society actors in the network include for example charities, not-for-profit organisations, NGOs, associations and other organisations like NESTA or the British Council (see Figure 11). In these examples, value in the network is created through partnerships and services offered to such organisations. This can be a partnership with a cultural organisation collaborating for an event. For example, Creative Cardiff partnered with the Community Gateway, a Cardiff University engagement programme which brokers university and community partnerships, for a year to deliver several events and projects. It has launched more than 48 community-university projects making connections between university staff, students and Grangetown residents to help bring community-led ideas to life.[11] Most creative networks are also highly engaged with the media and press to engage wider publics. Creative networks often promote creative projects or the local creative industries through the web presence of the creative networks and PR and communications work.

[9] https://www.cardiff.ac.uk/__data/assets/pdf_file/0005/528872/Mapping-Cardiffs-Creative-Economy-English.pdf

[10] https://www.cardiff.ac.uk/creative-economy

[11] https://creativecardiff.org.uk/research-and-projects/projects/community-gateway

Civil society organisations, as identified above, are also engaged with funding activities of creative networks. This includes for example funding through the British Council (as described above), NESTA or other organisations (which are not part of the government).

D. Value generation between industry and creative networks

Finally, creative networks engage with a range of businesses and freelancers from the creative industries. While large creative organisations work with creative networks (e.g. BBC Cymru Wales is a founding member of Creative Cardiff), the majority of creative businesses they work with are small or micro businesses (and SMEs) or freelancers. As discussed above, creative networks in the UK engage more than 18,000 creative businesses and freelancers (see Figure 4).

It is also important to highlight the value generating impact of creative networks on the wider economy and other sectors (see Figure 11). While the focus of activities of creative networks lies with the local creative industries, there is evidence of organisations in other sectors engaging in value generation in the network. This includes, for example, partnerships or collaborations with such companies or organisations. Creative Cardiff, for example, established the Coworking Collective a partnership with several coworking spaces hosting meetings and events encouraging collaboration between hub managers. Coworking spaces do not only target creative industries businesses and freelancers thus showing the impact creative networks can have on spaces and places and activities outside of creative industries.

Previous research already highlighted the strong connections and spill-over effects the creative industry can have between different industries and the creative industries and the overall economic impact. Findings of Zhao, O'Mahony, and Qamarreveal (2020) highlight that not only is there a positive and interactive relationship between creative workers and ICT, but the combination of creative workers and ICT leads to higher levels of GVA growth. We could also find a lot of value generating activities between creative networks and their local ICT sector. An example is Creative Quarter Nottingham who are working on Big House, a programme bringing several partners together including Derby QUAD, Derby Theatre, NBV Enterprise Solutions Ltd, New Art Exchange - NAE, D2N2 Growth Hub, Nottingham Trent University, Hive, Nottingham City Council and the University of Derby's School of Arts. Big House supports creative and digital start-ups, prestart start-up growing and SME businesses in the creative and digital sectors, through for example, the Big House CDI Grant and The Elevator programme.[12] Creative Cardiff has set up Immersive South Wales, which is a quarterly meetup to regularly bring together those working in immersive technology in the area.[13]

Finally, it's important to highlight the role creative networks play engaging freelancer workers with creative industries businesses. As discussed above (see Figure 6), due to the small size of most creative companies, businesses are keen to support and join networks, but the sector itself is unlikely to have the capacity for network development.

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[12] https://bighouse.org.uk/

[13] https://creativecardiff.org.uk/research-and-projects/projects/immersive-south-wales

Caste study 3: Bringing creative industry players together - Creative Dundee's Amps programme

The Amps network at Creative Dundee is "a community of people who make and cultivate creativity in Dundee". The community meets regularly, online and offline, to share news and ideas, discuss current issues and collectively build the future of the city. The Amps network offers an opportunity to be more visible and connected within the local creative community through events designed to build connections, showcase local projects, and develop collaborations throughout Dundee and beyond. Network members are eligible for the Community Ideas Fund, awarded once a year. Amps is funded through member fees. Out of every Amps subscription 50% go towards the fund. The other 50% of all subscriptions goes towards commissioning local creatives to make work highlighting important current issues. It also allows Creative Dundee to provide Pecha Kucha events, captioning of original content on the website and offering regular catch-ups and events.[14]

[14] https://creativedundee.com/amps-network/

Value flows in the creative network value network

As shown above, specific flows are created by certain actors that create and disseminate value in the value network. In this section we discuss the value flows, which have been touched upon above, in more detail. Because of the distinctive features of creative networks, value generation needs to consider the degree to which economic value is only one part of a complex value system (in comparison to classical value networks of companies). We found that creative networks embrace a range of additional cultural and societal values as well as other intangible values (which are more difficult to quantify, measure and track). This is partly intrinsic in a sector which operates on a continuum between economic and cultural value, including both a subsidised cultural sector and the commercial creative industries (with much grey area in between). We have categorized the value flows in creative network's network into four categories (which can be also found in Figure 11):

a. Monetary value flows
b. Collaboration and cooperation value flows
c. Service and knowledge value flows
d. Other intangible value flows

a. Monetary value flows in the creative network (direct funding, project-based funding)

The survey revealed that the main source of revenue (in terms of monetary value flows) for creative networks is public funding, with around 4 in 10 indicating that this is their main source of income (see Figure 8 above). The other main income sources include project-related funding, membership fees and other earned income. This kind of funding can come from all actors in the network, including government, academia, civil society organisations and industry. Many creative networks rely, for example on membership fees from sector members (see case study 4). Other income can be raised through advertising on the network's website or a regularly published magazine.

Overall, we found that many creative networks struggle to generate income (if no public institution or large organisation is securely involved), and income sources correlate with the size and age of creative networks. The more established the creative network, the bigger the share of earned income. As shown in Figure 10 above, securing funding is the most pressing challenge creative networks face. At the same time, creative networks generate direct monetary value and funding for other actors in the network. This can include the attraction of project funding to universities through the creative network but also the creative network directly funding - or being the intermediary for distributing funding - creative businesses (see case study 3).

Case study 4: Funding and income generated for creative networks - Bristol Creative Industries membership

Bristol Creative Industries offers tiered membership based at different rates depending on the tier. At £45 per year, they offer the Individual & Start Up rate for freelancers, small businesses and start-ups turning over less than £150k. For established and growing businesses and agencies with 2 or more employees they offer a business rate of £120 per year. Students & Graduates membership is free. Benefits of their membership include the ability of members to showcase their business through their members directory, to participate in industry events, and post jobs for free, and to self-publish news and discounts at local retailers.[15]

b. Collaboration and cooperation value flows in the creative network (access and connections to actors)

One of the most important value generation mechanisms in the network initiated by creative networks is collaboration and cooperation. We highlight this as distinctive flow that connects all actors in the network through the creative network. Creative networks bring different actors in the network together in various ways: through for example, networking events or a network directory or listing, which members of the network use to find contacts in their local creative industries. The survey showed that all respondents offer networking events, and 9 out of 10 say these offer access to their network. Creative Cardiff, for example, hosts monthly Collaborate! meet-ups designed to bring creatives together to encourage collaboration[16] (see also case study 5). Creative Edinburgh runs a Mentoring Scheme, which aims to support individuals and business owners by connecting them with experienced Mentors.[17]

There is a consensus in research that collaboration of creative businesses leads to a more efficient use of knowledge (Stejskal et al., 2018). Creative networks are acknowledged to be a catalyst to enable collaboration and cooperation. However, tracing and measuring the direct effect of the activities of creative networks on collaboration and cooperation is often hard to measure and proof.

Case study 5: Connecting creative businesses with advisors - Creative Kernow's Cultivate scheme

Creative Kernow's Cultivate scheme is a creative business support scheme. It includes a range of support measures for creative businesses with and through partners including one-on-one business advice, creative investment grants, internship incentives, specialist mentoring, skills development grants and a creative export programme. They have a team of advisors who have an in-depth understanding of different segments of the creative industries as well as the knowledge and experience to support and cooperate with creative businesses.[18]

[15] https://bristolcreativeindustries.com/join/#Individual-startup-membership

[16] https://creativecardiff.org.uk/creative-hub/events

[17] https://creative-edinburgh.com/what-we-do/mentoring

[18] https://cultivatorcornwall.org.uk/

c. Service and knowledge value flows in the creative network (provision of services and knowledge)

Creative networks offer a range of different services and as such contribute to additional service and knowledge value flows. Our survey found that this can include creative networks offering workshops and training, research and development (R&D), mentoring programmes (see above), access to equipment, studio space, hot-desking or co-working space, and incubation programmes among others.

The knowledge generated by creative networks can be vital for new industry entrants to understand and act in the local creative industries. Examples of activities include publishing of research by the creative networks, provision of information about co-working spaces for example or other information being shared at events and through other creative network activities (see case study 6). Creative networks also generate other knowledge flows (Bathelt & Gräf, 2008) as one of the participants of the workshop explained: *"We do a lot of crowdsourcing, and we do a lot of engagement with both citizens and creative communities and feed that back to [policy makers]. To people that need to hear it."* While services offered by creative networks including diverse programmes and for example publishing of reports and data, also these flows are quite difficult to capture and measure the real impact of creative networks.

Case study 6: Commitment and toolkits provided by creative networks - Wired Sussex talent manifesto

The Wired Sussex talent manifesto, is a collective commitment that supports the network's goal of making the region the best place in the UK for anyone to build a fulfilling digital career. This manifesto offers a collective commitment that businesses can sign up to, to support the aspiration to make Greater Brighton the best place in the UK to work in the digital sector resulting in a Pledge and a Diversity and Inclusion toolkit, that members get access to.[19]

d. Other intangible value flows in the creative network (e.g. place-making, socio-cultural impact and indirect knowledge exchanges and spill-overs)

While the value flows described thus far focus more on formal ways of value generation that can be captured through activities, creative networks foster other intangible values. We define here intangible values as these values which cannot be as easily captured through measurement of monetary, goods and service flows or other direct activities of the creative network. This is what differentiates the value network of creative networks from the classical value network of firms and other industries. By its very nature, the creative industries engage in various forms of social meaning and intervention. Audiences for the creative industries operate fully as both citizens (constructing social meanings from stories, ideas, images and

[19] https://www.wiredsussex.com/initiative/1310656/skills-talent-and-diversity

identities and navigating creative spaces, which are a key site for much of our social interaction) and as consumers (validating certain choices though the marketplace and increasingly driving co-creation). With the creative networks at the heart of local creative industries, construction of the place and socio-cultural identity becomes an important value created by creative networks.

The sense of being part of a network, and belonging to the same network, can create trust and lead to closer collaboration and knowledge spill-overs. We have found that creative networks build a sense of local identity captured through cultural value flows (see case study 7), or the creation of social spaces that have social value. This also includes the generation of spill-over effects within the creative industries beyond its sector (as described above). These so-called spill-over effects are described in literature as the processes by which activity in the creative industries has a subsequent broader impact on places, society or the economy through the overflow of concepts, ideas, skills, knowledge and different types of capital (Fesel, 2015). Others have suggested, creative industries networks both rely on and add to a network's social capital and the symbolic value of culture and creative industries more broadly, in contributing to the symbolic value of place identification (Harvey et al., 2012; Zukin, 1996). Creative networks additionally create places where interpersonal networking can occur, and information, tacit knowledge and relationship building are developed through personal encounters (Gertler, 2003). While these intangible values have been explored in research, much still needs to be learned about the role of creative networks in this value generating area.

Case study 7: Building cultural value and meaning of place - Portsmouth Creates' 'We Believe' arts trail

The 'We Believe' arts trail of Portsmouth Creatives was developed in partnership with Portsmouth City Council. Each artist was micro-commissioned to produce a poster, guided by the theme 'We Believe – expressions of hope & optimism for our city beyond covid-19.' The trail was artist-led and they asked artists to produce a piece representing what the theme meant to them. The trail is a 30-minute walk around Portsmouth which can be enjoyed by the local community.[20]

[20] https://www.portsmouthcreates.co.uk/we-believe/

DISCUSSION AND CONCLUSION

Creative networks function as a central node between a wide array of actors in an established network. Each actor category receives value *from* the creative network, and at the same time, creates value *for* the creative network.

The creative network which brings the network to life, operating in the spaces between different actors as a convenor, communication channel and catalyst. At the heart of this system is the network, which is valued, in different ways, by all the actors across all domains. The main value creation actor in the network is therefore the creative network itself. It both creates and curates value, bringing order to a dispersed creative sector that, even in a single place, is made up of thousands of companies and freelancers, and which, as we have seen, lacks the capacity to self-organise.

At the same time, our study showed that there are different obstacles and limitations facing creative networks. We have, in this report, tried to make the value created by networks more tangible, but this value is not always easy to monetise or measure – hence an ongoing challenge is the need to create sustainable income. There is also a great deal of complexity in the bridging role that network managers undertake in terms of managing and engaging with multiple stakeholders, while responding to an increasingly challenging environment with diminishing resources and support. As one of our workshop participants pointed out: *"As well as working with members I have lots of different roles, wear lots of different hats and being really split. I think the challenge in terms of advocacy is also in our roles. My role in our county council has been squeezed and squeezed which has shrunk my capacity to work with our creative network."*

This complexity is compounded by the nature of a creative sector that exists on a continuum between public subsidy and commercialisation. In the words of one workshop participant: *"There is this kind of binary distinction between culture and creative industries, not understanding that it's both part of an evolution. And, you know, the two co-evolved together. We have a real hard time trying to convince our local enterprise partnership, that it's not just all about […] being able to scale up quite quickly. […] most of the creative industries are micro businesses and freelancers. And so, you know, we're focusing on skills, development, networking opportunities and looking at ways that growth can happen through collaboration, and inspiration, rather than just, by focusing on the number of jobs created."* In this context, we would summarise our findings under three main heading:

1. Creative networks create value by interconnecting quadruple helix actors

The visualisation of the value network shows how creative networks are an anchor point bringing together a variety of actors who, together, create various forms of value for a wide range of stakeholders. As well as supporting creative companies and freelancers, the creative industries are networked across government, higher education and civic society.

2. Creative networks create value in a variety of different ways including economic but also social and cultural values

Creative networks contain direct and indirect but also tangible and intangible value generation mechanisms having an impact on the economic, social and cultural development of places, which spill-over to the wider economy and place. The nature of the creative industries – based on small companies and freelancers – makes these networks particularly valuable, but the absence of large players makes it unlikely that this will be provided by the sector itself. The creative network is therefore an essential part of the creation of successful local creative industries. Identity formation, place-making and spill-over effects are intrinsic to creative networks, creating value for and beyond the creative industries.

3. Creative networks face obstacles hindering growth and there is a lack of understanding

In order to have a real impact, creative networks need to reach a critical mass of actors in their networks. But they will also need to be able to demonstrate the value they bring, so they are fully appreciated and understood by all stakeholders; an issue intensified by the current economic environment, where a focus on direct financial value makes this more challenging.

Recommendations

These findings mean we need to continue to develop a narrative and evidence-base to explain and measure the value of creative networks across the UK. This could be done by:

1. Uniting policy efforts and understanding, ongoing resourcing, support and guidance

As key stakeholders in creative networks, further consideration should be given to clarify the role performed by local leadership and other bodies in facilitating networks. This should be done on both a UK and regions and nations basis to enable both streamlining of activities, bearing in mind of subtleties of historical and local specificities.

2. Networking the networks

As critical facilitators of the networks, regular meetings for network managers and co-ordinators will support and enable learning and development. Bringing creative network practitioners together regularly to exchange best practices and learnings is vital to knowledge and skills sharing, exchange and collaboration to enhance and develop the overall network ecosystem in the UK.

3. Creative network member engagement

Members of networks are the life blood of networks. It is important to undertake further work to sample network attendees and non-attendees in locations across the UK in order to better understand the benefits of being involved, and any barriers to engagement to provide additional information to our understanding of value creation for participants, members and users.

4. Supporting research and understanding

Information gathering needs to inform communication strategies to demonstrate the value of networks both to potential members and funders, and to address specific barriers to engagement for both freelancers and companies. The value generation of creative networks is still not fully understood. We recommend to further research to extend the knowledge base about value networks in the future.

REFERENCES

Bathelt, H., & Gräf, A. (2008). Internal and external dynamics of the Munich film and TV industry cluster, and limitations to future growth. *Environment and Planning A*, *40*(8), 1944–1965.

Brown, J., Nadler, R., & Męczyński, M. (2010). Working on the edge? Creative jobs in Birmingham, Leipzig and Poznan. *Making Competitive Cities. Wiley-Blackwell, Chichester, 208231.*

Carayannis, E. G., & Campbell, D. F. (2012). Mode 3 knowledge production in quadruple helix innovation systems. In *Mode 3 knowledge production in quadruple Helix innovation systems* (pp. 1–63). Springer.

Caves, R. E. (2000). *Creative industries: Contracts between art and commerce*. Harvard University Press.

Clare, K. (2013). The essential role of place within the creative industries: Boundaries, networks and play. *Cities*, *34*, 52–57.

Creative Industries Council (CIC). (2021). *Employment figures: Creative industries growth surge continues*. https://www.thecreativeindustries.co.uk/facts-figures/uk-creative-overview-facts-and-figures-employment-figures

Creative Industries Federation. (2017). *Creative Freelancers*. https://www.creativeindustriesfederation.com/sites/default/files/2017-07/Creative%20Freelancers%201.0.pdf

Creative Industries Federation. (2018). *The UK's Creative Industries: Statistics*. https://www.creativeindustriesfederation.com/statistics

DCMS. (2001). *Creative industries mapping document 2001*. Department for Culture, Media & Sport.

DCMS. (2016). *DCMS Sectors Economic Estimates*. DCMS. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/544103/DCMS_Sectors_Economic_Estimates_-_August_2016.pdf

DCMS, & Adams, N. (2020). *UK's Creative Industries contributes almost £13 million to the UK economy every hour*. https://www.gov.uk/government/news/uks-creative-industries-contributes-almost-13-million-to-the-uk-economy-every-hour

Deuze, M. (2011). *Managing Media Work*. SAGE Publications.

Felton, E., Collis, C., & Graham, P. (2010). Making connections: Creative industries networks in outer-suburban locations. *Australian Geographer*, *41*(1), 57–70.

Fesel, B. (2015). *Spillover Effectof Cultural & Creative Industries*. European Economic and Social Committee. https://www.eesc.europa.eu/resources/docs/bernd_fesel.pdf

Florida, R. (2004). *Cities and the Creative Class*. Routledge.

Gertler, M. S. (2003). Tacit knowledge and the economic geography of context, or the undefinable tacitness of being (there). *Journal of Economic Geography*, *3*(1), 75–99.

Gibson, C., & Klocker, N. (2004). Academic publishing as 'creative'industry, and recent discourses of 'creative economies': Some critical reflections. *Area*, *36*(4), 423–434.

Goodwin, K. (2009). *Designing for the digital age: How to create human-centered products and services*. Wiley.

Harvey, D. C., Hawkins, H., & Thomas, N. J. (2012). Thinking creative clusters beyond the city: People, places and networks. *Geoforum*, *43*(3), 529–539.

Hasche, N., Höglund, L., & Linton, G. (2020). Quadruple helix as a network of relationships: Creating value within a Swedish regional innovation system. *Journal of Small Business & Entrepreneurship*, *32*(6), 523–544.

Hesmondhalgh, D., & Pratt, A. C. (2005). Special issue: The cultural industries and cultural policy. *The International Journal of Cultural Policy*, *11*(1), 1–3.

Higgs, P. L., Cunningham, S. D., & Bakhshi, H. (2008). *Beyond the creative industries: Mapping the creative economy in the United Kingdom* [Technical Report]. NESTA. https://eprints.qut.edu.au/12166/1/beyond_creative_industries_report_NESTA.pdf

Johnsen, R. E., & Johnsen, T. E. (1999). International market development through networks. *International Journal of Entrepreneurial Behavior & Research*.

Komorowski, M. (2016). The seven parameters of media clusters: An integrated approach for local cluster analysis. *International Journal of Media & Cultural Politics*, *12*(2), 171–191.

Komorowski, M. (2019). *Innovation Ecosystems in Europe: First outline of an innovation ecosystem index*. European Commission. https://ec.europa.eu/futurium/en/system/files/ged/final_study_on_innovation_ecosystems_in_europe_imec_smit_komorowski.pdf

Komorowski, M., & Picone, I. (2020). *Creative Cluster Development: Governance, Place-making and Entrepreneurship*. Routledge.

Kong, L. (2005). The sociality of cultural industries: Hong Kong's cultural policy and film industry. *International Journal of Cultural Policy*, *11*(1), 61–76.

Lazzeretti, L., Boix, R., & Capone, F. (2009). Why do creative industries cluster? An analysis of the determinants of clustering of creative industries. *IERMB Working Papers in Economics*, *No 09.02*. http://ddd.uab.cat/pub/worpap/2010/hdl_2072_87967/wpierm0902.pdf

Lee, D. (2013). Creative networks and social capital. In *Cultural work and higher education* (pp. 195–213). Springer.

McRobbie, A. (2002). Fashion culture: Creative work, female individualization. *Feminist Review*, *71*(1), 52–62.

Mommaas, H. (2004). Cultural clusters and the post-industrial city: Towards the remapping of urban cultural policy. *Urban Studies*, *41*(3), 507–532. https://doi.org/10.1080/0042098042000178663

Moreton, S. (2016). Rethinking 'knowledge exchange': New approaches to collaborative work in the arts and humanities. *International Journal of Cultural Policy*, *22*(1), 100–115.

Mortati, M., & Cruickshank, L. (2011). *Design and SMEs: The trigger of creative ecosystems*. 1–8.

Porter, M. E. (1985). *Competitive advantage: Creating and sustaining competitive advantage*. Free press.

Porter, M. E. (1998). *Cluster and the new economics of competition.*

Pratt, A. C. (2013). The cultural and creative industries: Organisational and spatial challenges to their governance. *DIE ERDE–Journal of the Geographical Society of Berlin*, *143*(4), 317–334.

Pratt, A. C., & Jeffcutt, P. (2009). *Creativity, innovation and the cultural economy*. Routledge.

Stejskal, J., Hájek, P., & Prokop, V. (2018). Collaboration and innovation models in information and communication creative industries–the case of Germany. *Journal of Information and Communication Technology, Volume 17, Issue: 2*.

The Work Foundation. (2007). *Staying ahead: The economic performace of the UK's creative industries*. DCMS. https://issuu.com/eoffice/docs/the_work_foundation_-_economic_performance_of_uk_s

Vogel, H. L. (2008). *Entertainment industry economics: A guide for financial analysis* (7. ed [Reprint]). Cambridge Univ. Press.

Wirtz, B. W. (2011). Business model management. *Design–Instrumente–Erfolgsfaktoren von Geschäftsmodellen*, *2*.

Zhao, K., O'Mahony, M., & Qamar, A. (2020). Bridging the gap in creative economy and ICT research: A regional analysis in Europe. *Applied Economics*, *52*(29), 3153–3166.

Zukin, S. (1996). *The cultures of cities*. Wiley-Blackwell.

ABOUT THE STUDY

This study was conducted in conjunction with Cardiff University's Creative Economy Unit, and with Creative Cardiff, a network which connects people working in any creative organisation, business or job in the Cardiff region.

Find out more via https://www.creativecardiff.org.uk/

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