

Createch: Peer-to-Peer Networking (P2P) and Knowledge Exchange (KE)

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Createch P2P and KE projects are funded by [UKRI](#) via the University for the Creative Arts, AHRC Impact Acceleration Account (IAA).



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Executive Summary

Createch Peer-to-Peer Networking (P2PN) and Createch Knowledge Exchange (KE) are two interlinked projects funded by [UKRI](#) via University for the Creative Arts and the AHRC Impact Acceleration Account (IAA). The projects seek to advance the sustainability focus of existing Createch networks and explore the potential for a new one with sustainability at its core.

Definitions

P2PN: refers to a decentralised network where participants, or "peers," connect directly with each other to share resources, information, and collaborate without the need for central control.

KE: the structured two-way process where individuals, groups, or organisations share, disseminate, and leverage knowledge to foster innovation, improve practices, and drive collective learning.

Createch remains an emergent sub-sector of the Creative Industries (and some companies don't necessarily see themselves as part of this sub-sector). However, at least in the UK, key stakeholders such as the Creative Industries Council are flagging it strategically. There is a lack of clarity (sometimes even in the minds of the leaders of Createch businesses) as to definitions. For this report, *Createch is defined as a growth-oriented business or organisation that is in either the Cultural Sector or Creative Industries that designs or delivers creative experiences, products, or services with technology assets central to the value proposition.* Typically, these are Business-to-Business (B2B) micro, small or medium-sized enterprises (MSMEs).

In Autumn 2023, The Centre for Sustainable Design ® (CfSD) at University for the Creative Arts (UCA) launched a [Sustainability Tool for Createch](#) companies ("the tool") that combines benchmarking with actionable guidance. The tool has attracted over 500 users from 29 countries, yet peer-to-peer networking and KE regarding sustainability within the international Createch sub-sector remains limited. Hence, these [new projects](#) aim to enhance understanding of the current state of networking and identify sustainability KE gaps and to make recommendations that accelerate Createch networking around sustainability topics.

Observations have been drawn from:

- Online research to create a list of existing networks involving Createch Founders, CEOs and CTOs.
- An international survey of 59 organisations in the Creative Industries, conducted in May 2024, that provided valuable perspectives¹.
- Insights from workshops and online KE sessions with users of the CfSD sustainability tool for Createch.

Findings

The following findings relate to Createch businesses, unless explicitly stated otherwise.

¹ See Creative Industries Sustainability Network, French & Charter, July 2024.

Current networks

- 247 Creative Industries networks were identified globally², with 14 explicitly focused on Createch. Only nine networks intersect both Createch and sustainability to some degree³, but there are no Createch networks or initiatives dedicated to sustainability.
- These networks vary widely, originating from academic institutions, government departments, regional, national and sub-national initiatives and membership organisations.

Common themes

- **Structure:** There are no Peer-to-Peer (P2P) networks of any scale for Createch. The networks identified are predominantly top-down, potentially limiting conversations about sustainability between, for example, startups or other early-stage companies ('peers'). Based on the last four years of CfSD research, this is significant as P2P networking is the preferred style of networking for Createch founders, CEO and CTOs.
- **Geography:** Compared to the rest of the Creative Industries, Createch networks are at best regional (e.g., Western Europe), with most being national or sub-national.
- **Access to Funding:** Government grants and other sources of funding are available but often tied to policy directives that make it less likely that Createch can win them. Many grants fund either creative and cultural activities *or* technological R&D. Where creativity and technology are inseparable (as is the case for Createch) it is more challenging to meet criteria and secure funding.
- **Participation:** Often controlled by membership charters and guidelines designed for much larger organisations and so are unattractive to Createch founders, CEOs and CTOs. For example, an association for technology companies might require substantial annual fees, a minimum number of employees, or specific revenue thresholds that Createch MSMEs cannot meet.
- **Stability:** The more established Createch networks⁴ ensure continuous and consistent engagement with its members by publishing events well in advance and ensuring there are no last-minute cancellations and changes. This consistency helps build trust and demonstrates the network's commitment to providing value to its members.
- **Government Involvement:** Six of the nine networks identified that cover Createch and sustainability are run or substantially funded by public sector organisations. Public sector involvement can provide substantial resources in areas such as funding, R&D grants and tax incentives. However, some resources are more relevant to Createch than others, such as infrastructure support for high performance computing, or access to specialist research and development facilities in universities. However, Createchs and other MSMEs that take advantage of government schemes typically need to comply with rules for state aid and invest their scarce resources into complying with reporting rules attached to loans and grants, tax breaks. This can include detailed financial reporting and formal project milestone reports. In addition, some government support may require adhering to policy goals that might not align

² Desk research between December 2023 and June 2024.

³ 'Intersect' here means that the networks include members or stakeholders from Createch and have at least one special interest group or working party or project related to sustainability. However, the level of activity related to sustainability may be low.

⁴ Those that are older and with larger memberships.

perfectly with the company's objectives. For example, executing the work in a specific location to encourage local employment.

- Anchor Figures: In the Creative Industries, successful networks and initiatives feature well-known entrepreneurs or celebrities, etc. This is not the case for the Createch networks identified and may partially explain their lack of scale.

Survey insights

- Createch companies reported lower satisfaction with networking opportunities compared to others in the Creative Industries.
- For Createch companies, the number one motivation for networking is client acquisition
- Significant barriers to Createch participation are time, cost and geography.

Knowledge Exchange gaps

- Createchs view integrating sustainability concepts such as decarbonisation, the UN Sustainable Development Goals (SDGs) etc into business models, improving energy consumption and lifecycle impacts as the priority gaps to close.
- A drop-in format (online or in-person) works well for Createch leaders, but attendance is unpredictable.

Recommendations

These recommendations are for organisations currently engaged in networking and KE with Createch businesses and those exploring options to create new networks and KE practices. They are also relevant to stakeholders with policy advocacy roles such as the European Institute of Innovation and Technology (EIT) Culture and Creativity, the UK's Department of Digital, Media and Sport (DCMS), UK's Creative Industries Council (CIC), UK Research and Innovation (UKRI) and the UK's Policy and Evidence Centre (PEC).

1. Develop more flexible, Peer-to-Peer (P2P) networks: Createch companies often work on the cutting edge of both technology and creativity. P2P networks facilitate dynamic KE, ensuring that the latest advancements and creative trends are quickly shared and integrated into projects. P2P networks help build a strong, supportive community and this is particularly important in an emerging sub-sector such as Createch, where a culture of openness, trust, and mutual support can significantly enhance business success.
2. Enhance sustainability focus: Create tailored and relevant sustainability initiatives, resources and support capabilities for Createch founders, CEOs and CTOs within existing networks. For example, creating a working group to determine best practices to lower carbon emissions by optimising software algorithms to reduce computation time for generative AI and hence energy consumption
3. Address participation barriers: The majority of Createch companies are MSMEs with limited financial resources, working under intense time pressures. It is important to reduce time, cost and geographical constraints (such as only scheduling events in large cities and urban areas) through discounts for MSMEs, local meetups and hybrid events (in-person and livestreamed).
4. Improve KE practices: Create tailored programmes focusing on Createch-specific sustainability challenges and priorities. For example, a comprehensive programme

that addresses decarbonisation of the end-to-end product lifecycle, from development to deployment. There is also a need for further research to develop effective KE processes suited to the nature of Createch businesses. This could involve looking at other industries with similar characteristics to identify learnings and ways to encourage two-way exchange between academic researchers and business users in Createch.

5. Establish regular forums: Organise scheduled forums for Createch leaders to discuss the important trends in sustainability and technology-related topics. For example, opportunities and challenges for Createchs from the move to more virtual production in film and high-end TV.

Policy advocacy

The rapid introduction of advanced technology into most areas of the Creative Industries underscores the need for effective policy advocacy to support and this must include the Createch sub-sector.

Stakeholders such as the European Institute of Innovation and Technology (EIT) Culture and Creativity⁵, the UK's Department of Digital, Media and Sport (DCMS), the UK's Creative Industries Council (CIC), UK Research and Innovation (UKRI) and the UK's Policy and Evidence Centre (PEC) play a critical role in this regard in terms of developing policies that recognise and support the unique needs of Createch companies, ensuring that funding, resources, and regulatory frameworks are conducive to innovation and growth.

For example, stakeholders might advocate for policies that address specific challenges faced by Createch companies, such as access to appropriate levels of funding, tax incentives for innovation in decarbonisation etc. This requires an evidence base upon which to form policies, and an important input is measuring the economic contribution and emissions impact of Createch.

Conclusion

Implementing these recommendations will strengthen the Createch sector by fostering a supportive community, enhancing sustainability practices, lowering participation barriers, improving KE, and ensuring continuous dialogue about sustainability.

These steps are crucial for the sustained growth and success of Createch companies in an increasingly competitive and environmentally conscious market.

⁵ EIT Culture & Creativity is a knowledge and innovation community aiming to support cultural and artistic renewal in Europe and to create jobs and deliver sustainable and smart growth. It is part of Horizon Europe, the EU's Framework Programme for Research and Innovation.

Contents

Executive Summary	2
Introduction.....	7
Approach.....	8
Findings	9
Current networks.....	9
Survey	11
Workshops and online KE sessions	13
Discussion.....	15
Network structure and sustainability focus.....	15
Challenges in networking and KE	15
KE Gaps	16
Improving outreach.....	16
Conclusion and recommendations	18
Recommendations.....	18
APPENDIX A – Sustainability Tool Lessons	20
APPENDIX B – Networks at the intersection of Createch and sustainability	22

Introduction

The Creative Industries are undergoing a transformative shift, driven by the rapid embedding of digital technologies. From artificial intelligence (AI) and virtual reality to blockchain and cloud computing, these technologies are not only enhancing creative processes but also opening up new avenues for artistic expression and content creation. In parallel, a new sub-sector known as Createch is emerging at the intersection of creativity and technology.

Research by The Centre for Sustainable Design® (CfSD) at the University for the Creative Arts (UCA) has identified Createch as the fastest growing sub-sector of the UK Creative Industries⁶⁷. However, Createch remains an emergent sub-sector of the Creative Industries but, at least in the UK, key stakeholders such as the Creative Industries Council are flagging it strategically. Due to the early-stage development of the sector (many Createch businesses are still startups and the majority are less than 10 years old), there is a lack of clarity as to definitions, sometimes even in the minds of the leaders of Createch businesses.

For the purposes of this report, Createch is defined as *a growth-oriented business or organisation that is in either the Cultural Sector or Creative Industries that designs or delivers creative experiences, products, or services with technology assets central to the value proposition*. Based on four years of CfSD research, these assets fall into four core areas:

- AI.
- 3D and immersive technologies (such as virtual and augmented reality).
- Web3 technologies (including blockchains and metaverses).
- Advanced analytics and workflow technologies.

Typically, these are Business-to-Business (B2B) micro, small or medium-sized enterprises (MSMEs), often categorised as startups or scaleups.

This latest research, funded by [UKRI](#) via the University for the Creative Arts, AHRC Impact Acceleration Account (IAA), and four years of prior research, highlights multiple sustainability challenges for the Creative Industries and Createch specifically (e.g., emissions from electricity consumed by generative AI). In addition, a 2022 survey of Createch in the UK showed that over 70% of companies are at a zero or basic level of sustainability maturity⁸, with a lack of relevant knowledge and peer support being cited as reasons for the lack of progress.

⁶ In the UK, the Department of Culture, Media and Sport (DCMS) divide the Creative Industries up into nine sub-sectors for analysis purposes: Advertising and marketing; Architecture; Crafts Design and designer fashion; Film, TV, radio and photography; Museums, galleries and libraries; Music, performing and visual arts; Publishing; and IT, software and computer services (includes video games). Despite being recognised as an emerging sub-sector, Createch is not currently captured in government statistics as an area of economic activity.

⁷ See multiple reports at <https://cfsd.org.uk/research/>.

⁸ CfSD research uses a Zero, Basic, Intermediate and Advanced maturity scale.

From prior investigations⁹, peer-to-peer (P2P) networking and knowledge exchange (KE) regarding sustainability and related topics within the UK and international Createch sub-sector appears ad hoc and limited. This report sets out to validate that assumption and to:

- Identify existing Createch networks that have a sustainability focus.
- Clarify what makes for a successful network and effective KE.
- Examine options for enhancing existing networks or establishing a new network for Createch.

Approach

The approach involved three steps.

1. Drawing lessons from a list of existing networks and sustainability KE activities involving Createch Founders, CEOs and CTOs.
2. Examining the insights gained from an international survey of 59 organisations in the Creative Industries (including Createch) conducted in May 2024.
3. Running workshops and online KE sessions to get practical insights from users of the CfSD sustainability tool for Createch (“the tool”) launched in September 2023. As of July 2024, the tool has over 500 users from 29 countries (see Appendix A).

⁹ See Createch in the UK: Sustainability Policy Linkages and Company Activity, Charter and Davis, July 2022.

Findings

Current networks

From online searches, 247 Creative Industries networks have been identified worldwide¹⁰. This should not be considered exhaustive, as there are likely many small, local networks that do not have a public profile. Also, closed online groups (for example on WhatsApp) are difficult to catalogue.

14 have Createch explicitly named as a focus for networking or KE¹¹ (6%), but only four use Createch in their name (e.g., CreaTech - Kingston Creative in Jamaica).

Although 74 (30%) dedicate significant effort to sustainability networking and KE¹², only nine of the Createch-focused networks also have a sustainability focus (see Appendix B). None are wholly dedicated to sustainability, and several have only recently increased their focus on sustainability.

The nine at the intersection of Createch and sustainability are varied and include:

- Those run by academic institutions (such as the University of the Arts London in the UK) as an offshoot of their research programmes.
- National government departments (such as the National Cultural Foundation in Barbados) seeking social and economic benefits from creative entrepreneurs.
- Regional economic development initiatives such as the CreaTech Bulgaria Cluster and MyWorld in the West of England.
- Membership organisations such as The Technology and Creative Sectors Entrepreneurship Association (TechCreas) in Turkey responding to a new and fast-growing segment of their membership.

Six of the nine are run or substantially funded by public sector organisations. Two are run by universities. Only one is a privately funded membership organisation.

The nine networks identified are in the Caribbean, Europe and the UK.

Common themes across both the 14 Createch networks and the subset of nine with a sustainability focus are:

- Structure: There are no Peer-to-Peer (P2P) networks of any scale for Createch (P2P networks do exist for other sub-sectors in the Creative Industries). The 14 Createch networks are top-down or centralised. This is significant as, based on the last four years of CfSD research, direct interaction and collaboration among employees, stakeholders, customers and partners is the preference for Createch founders, CEO and CTOs. More P2P networking is likely to be beneficial for Createch companies, which thrive on interdisciplinary collaboration and innovative thinking, and the ability to make quick adjustments and pivots based on rapidly changing technologies.

¹⁰ For more detail on these networks across all sub-sectors of the Creative Industries, see Creative Industries Sustainability Network, French & Charter, July 2024.

¹¹ See full criteria used for identification in Appendix B.

¹² Significant effort here means a dedicated initiative, working group or chapter.

Therefore, current networks potentially limit discussions between peers (for example, startups or other early-stage businesses) in the sub-sector about their sustainability challenges and potential solutions.

- **Geography:** In the more mature Creative Industries, global networks and initiatives exist. However, current Createch networks are regional (e.g., Western Europe), national or sub-national. It is possible this reflects the influence of specific universities (as many Createchs have grown from postgraduate projects), the presence of pre-existing creative or technology clusters, or local economic development activities (e.g., in cities such as Bristol in the UK and Bridgetown in Barbados).
- **Access to Funding:** The networks identified all provide a route to government grants and other sources of funding (e.g., bank loans, venture capital, private equity, etc). However, this funding is often tied to priorities and directives that make it less likely that Createch can win them. For example, many public and private grants fund either creative and cultural activities *or* technological R&D. Where the two are inseparable (as is the case for Createch) it is more challenging meet criteria and secure funding.
- **Participation:** Membership of the networks identified is typically controlled by membership charters and guidelines designed for much larger organisations and so may be unattractive to Createch founders, CEOs and CTOs. For example, an association for technology companies might require substantial annual fees, a minimum number of employees, or specific revenue thresholds that Createch MSMEs cannot meet.
- **Stability:** By adhering to a stable and reliable schedule, the more established Createch networks can ensure continuous and consistent engagement with its members. This consistency helps build trust and demonstrates the network's commitment to providing value to its members.
- **Stability:** The more established Createch networks¹³ ensure continuous and consistent engagement with its members by publishing events well in advance and ensuring there are no last-minute cancellations and changes. This consistency helps build trust and demonstrates the network's commitment to providing value to its members.
- **Government Involvement:** Six of the nine networks are run or funded by government departments and agencies, or intergovernmental organisations. Government involvement is therefore more hands-on (e.g., the UK's Digital Catapult is part of UK Research and Innovation, the UK's innovation agency). This means they can provide more substantial support and resources, but this comes with conditions related to public finances and policies. Public sector involvement typically takes the form of business loans, R&D grants and tax incentives for certain types of activity. However, some help is more relevant to Createch than others, such as infrastructure support for high performance computing, or access to specialist research and development facilities in universities. However, Createchs and other MSMEs that take advantage of government schemes typically need to comply with rules for state aid and invest their scarce resources into complying with reporting rules attached to loans and grants, tax breaks. This can include detailed financial reporting and formal project milestone reports. In addition, some government support may require adhering to policy goals that might not align perfectly with the company's objectives. For example, executing the work in a specific location to encourage local employment.
- **Anchor Figures:** In the Creative Industries, successful networks and initiatives feature well-known creative or technology entrepreneurs and celebrities (for example, [Jude Ower MBE's involvement with Gaming for Good](#)), or senior government or industry

¹³ Those that are older and with larger memberships.

figures in prominent positions. These individuals bring their personal networks to a network, and their high profile in the sector attracts more people to the network. This is not the case for the Createch networks identified and may partially explain their lack of scale.

Survey

A survey of networking in the Creative Industries covering all sectors was run by CfSD during May 2024. From that survey, Createch companies' data was extracted for this report. The sample size is small: six out of 59 respondents identified themselves as a Createch businesses (either an established, startup or scaleup businesses). The low response rate from Createch businesses is an ongoing finding in CfSD research: getting them to engage in surveys and other interventions is difficult.

Given the small sample size, the following findings should be treated as directional or indicative. However, four years of CfSD research (including recent interaction with Createch leaders at in-person and online events) informs the observations detailed here.

The six originated from France, Germany, Ireland, UK and UAE. Three had 10 employees or less, two less than 50, and one over 1000. In terms of sub-sector alignment, the six covered Design, Live Events, Fashion, TV and Film, and 'deep technology including the Art Market, Streaming, Video and Imaging, Games, and more'. 60% were solely Business-to-Business, the rest having hybrid business models.

In terms of sustainability maturity, 50% of the six Createchs that responded to the latest survey reported themselves as Zero or Basic maturity (see table 1). For comparison, the results from a larger 2022 survey by CfSD are included.

Table 1 Sustainability maturity.

	ZBIA Maturity Rating			
	Zero	Basic	Intermediate	Advanced
Overall (2024 survey)	10%	30%	35%	25%
Non-Createchs (2024 survey)	6%	32%	38%	24%
Createchs (2024 survey)	33%	17%	17%	33%
Createchs (from 2022 survey)	38%	36%	16%	10%

When asked about satisfaction with networking, Createchs were less satisfied than others (see table 2).

Table 2 Satisfaction with networking.

On a scale of 1 to 10, how satisfied are you with networking opportunities within the Creative Industries?	
Mean Score	
Createch	Others
4.5	5.3

When asked “what primarily motivates your participation in networking within the Creative Industries”, the number one driver for Createchs was acquiring new clients or customers. Whereas project collaboration was number one for all respondents (and number six for Createchs).

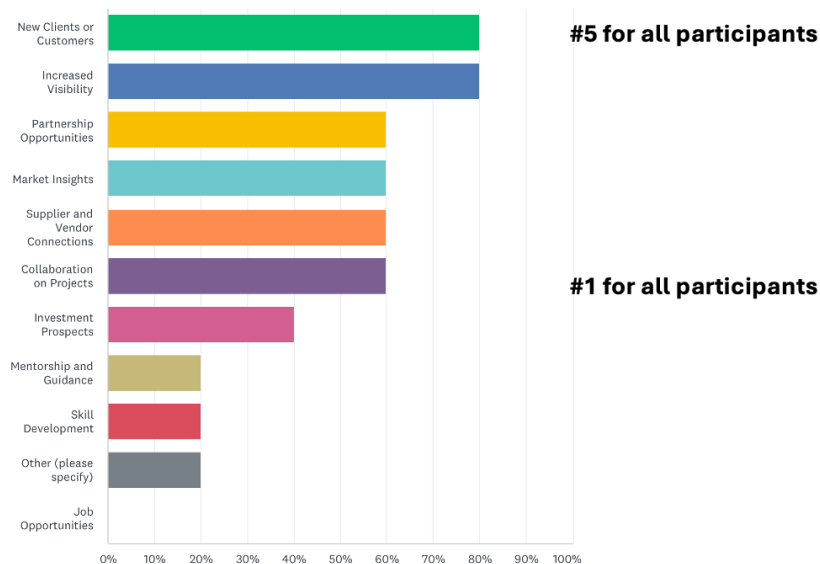


Figure 1 What primarily motivates your participation in networking within the Creative Industries (select all that apply)?

In terms of barriers to participation, the top three are the same for Createchs and other organisations: time, cost and geography (i.e., a lack of relevant local in-person events). For example, one high-profile games industry conference that Createch founders, CEOs and CTOs attend is a week long and sells all-access passes costing more than \$2000. No wonder (as one survey respondent wrote) “the barrier to entry for some events is quite high” especially when many Createchs are early-stage businesses with a small number of employees.

When asked “on a scale of 1 to 10, how satisfied are you with knowledge exchange activities within the Creative Industries?”, there is no difference between Createchs and others in the survey (both have a mean of 5.0). However, there is a difference in terms of the priority of KE gaps (see table 3).

Table 3 What are the major knowledge gaps regarding sustainability in the Creative Industries (select all that apply)?

What are the major knowledge gaps regarding sustainability in the Creative Industries (select all that apply)?	
Createch	Others
<ol style="list-style-type: none"> 1. Business models that can incorporate sustainability without compromising financial viability 2. Detailed understanding of energy consumption and strategies to mitigate this impact 3. Understanding the full lifecycle impact of products and services 	<ol style="list-style-type: none"> 1. How to effectively collaborate across industries and disciplines (#7 for Createch) 2. Understanding the full lifecycle impact of products and services (#3 for Createch) 3. Sustainability education and training (#9 for Createch)

When asked for examples of sustainability KE practices from other industries that could be replicated or scaled, Createchs identified technology transfer processes and frameworks as a priority. For example, technology licensing approaches and how to operate open innovation platforms. The lack of any major trade show or conference (e.g., as found in other industries such as aerospace and energy) was noted as something that limited technology transfer within the sub-sector.

In addition, Createch leaders are seeking more “hard-science” (e.g, computer science, material science etc) and “inclusive case studies across nations and cultures”. This latter point suggests that Createch companies are looking to capture as wide a range of creative and technological practices as they can i.e., there is no single source for knowledge. Different countries have unique cultural contexts and approaches to creativity and technology integration, which can provide valuable insights and innovative solutions that may not be evident within a single cultural framework.

Workshops and online KE sessions

Three workshops were planned, and two were completed¹⁴ (Luxembourg and Scotland). Six online KE ‘drop-in’ events were run. 50 people from Createch (or adjacent) backgrounds with an interest in sustainability attended these workshops and KE events.

Key learnings from organising and running these events are:

1. Participants aren’t always clear if they are ‘in’ Createch. The scope of Createch continues to evolve. For some participants, any “technology used in creativity” or any “technology used in Creative Industries” is equated with Createch.
2. Identifying and communicating with Createch founders, CEOs and CTOs is challenging as there are no professional or trade registers to work from. One workshop, while having good attendance, required the organiser to make repeated personalised phone calls to secure participation. Mailing lists and broadcasts on social media appear to have limited success.
3. Many Createchs choose to be affiliated with broader segments of the Creative Industries or Technology sectors, making identification harder.

¹⁴ The authors acknowledge the generous support of [Technische Universität Berlin](#), [Universität der Künste Berlin](#), Luxinnovation, the British Council, and Creative Tech Scotland.

4. The drop-in format works well for Createch leaders, but attendance is unpredictable. For example, CfSD organised drop-in sessions for users of the Sustainability Tool but getting Createchs founders, CEOs and CTOs (as opposed to sustainability consultants and academics) to attend these was challenging.
5. Partnering with existing networks maximises the chances of Createch participation only if the marketing communication is correctly targeted.
6. The level of understanding of environmental and social impact varies greatly within the Createch sub-sector. The importance of Scope 3 emissions and addressing effects in the ‘World Behind the Screen’¹⁵ are almost universally poorly understood.
7. There is a strong appetite for more P2P events, particularly for discussing information technology related sustainability topics (e.g., strategies for reducing carbon emissions associated with the use AI and how to manage suppliers). Createch leaders clearly value talking to each other and have no natural forum (in-person or online) to gather in.

A more general observation is that better prepared and structured events (such as the CreativeTech Scotland Gathering¹⁶) with high-profile industry figures in attendance, a showcase of product demonstrations from Createch companies and hands-on workshops are more likely to succeed given the challenging nature of Createch participants.

¹⁵ The World Behind the Screen is a concept developed by Charter and Davis to visualise the environmental and social impacts in the end-to-end value chains that Createchs operate in.

¹⁶ This event took place on 28th June 2024 in Edinburgh (see <https://ctsg.scot/about2024.html>).

Discussion

The findings from the Createch Peer-to-Peer Networking (P2PN) and Knowledge Exchange (KE) projects confirm a consistent CfSD experience: this sub-sector is difficult to engage with, despite the rapid growth in the number of users for the CfSD Sustainability Tool (more than 500 users). This is reflected in the observations that there are a few dedicated Createch networks and responses to surveys and event invites can be sparse. The weakness of existing networks in respect of coverage of sustainability related issues also is apparent. There may be multiple reasons why engagement is difficult:

- Founders are time-starved and focused on business necessities such as finance, product development, etc. So, sustainability remains aspirational, rather than an urgent practical issue.
- Confusion over what is in and out of scope of Createch: the term seems to be used liberally and definitions vary from person to person.
- The collective understanding of what Createch companies do shifts as new technologies appear. For example, in the early days of Createch, many companies focused on immersive technologies, whereas the emphasis has shifted more to generative AI.

The points above are not insurmountable challenges to enhancing networks and KE, but they do help to shape future interventions to advance the sustainability needs of the sub-sector,

Network structure and sustainability focus

While there are many networks in the Creative Industries, there are few for Createch. There are even fewer with a dedicated sustainability focus in Createch. This is a critical gap, considering the pressing need for sustainable practices.

The nine networks identified at the intersection of Createch and sustainability demonstrate a diverse range of origins, including academic institutions, government departments, regional, national and sub-national initiatives and membership organisations. Each has strengths and challenges in fostering effective P2P sustainability KE, but none appear to be fully effective (i.e., low numbers of participating businesses, few tailored events, etc).

There are very few specialist networks focused related to sustainability issues in the Createch sector, perhaps because of the difficulties with engaging with founders, CEOs and CTOs in MSMEs. Running a startup rarely leaves much time for anything else!

Another notable finding is that current Createch networks operate in a top-down, centralised manner, counter to the preferences of the leaders of Createch businesses. While the current structures ensure a level of professionalism and quality, it can restrict access and stifle the spontaneous exchange of ideas between peers that Createch businesses need.

Challenges in networking and KE

Based on the limited snapshot from the survey, satisfaction with networking is middling at best. The survey results underscore the dissatisfaction among Createch entities with current networking opportunities. Createchs rate their satisfaction with networking lower than other

Creative Industry respondents, highlighting a significant area for improvement. This observation resonates with comments made in interviews with founders, CEOs and CTOs in previous CfSD research on Createch.

One reason that networking might be rated poorly by Createch is that their primary motivation for participating in networking is different. Client acquisition is top ranked, whereas project collaboration is the leading driver for the broader Creative Industries in the survey. This divergence suggests that Createchs will place more value on network events that involve their customers (such as media organisations, film production companies, games studios, etc). This shift in emphasis may enhance their overall satisfaction and engagement.

Barriers to participation in networking events, such as time, cost and geography, are important for all in the survey, but since many Createchs are still startups and micro-businesses that feel these pressures more. Imagine what it is like to run a Createch startup: a constant stream of challenges around winning customers who may not understand your product or service, securing finance for a new and risky area, developing and fixing cutting-edge software and hardware. It leaves little time for anything else. The high time and cost barrier for some events (such as conferences, as illustrated earlier) is therefore particularly important. Addressing these barriers is essential for creating more inclusive and accessible networks that can accommodate a wider range of Createch participants.

KE Gaps

The identified knowledge gaps reveal a critical need for tailored sustainability guidance within the Createch sector. Createchs prioritise understanding business models that incorporate sustainability without compromising financial viability, alongside detailed knowledge of energy consumption and lifecycle impacts. These priorities differ from the broader Creative Industries, which emphasise cross-industry collaboration and sustainability education. The current Createch networks examined do not address these priorities.

Knowledge concerning energy consumption and lifecycle impacts more generally does exist within professional networks for IT professionals. There is an imperative for these networks to explore the needs of Createch businesses and identify opportunities to fill this knowledge gap and attract more members in the process.

Priority Knowledge Gaps

1. How to integrate sustainability concepts such as decarbonisation, the UN Sustainable Development Goals (SDGs) etc into business models.
2. Approaches to measuring and reducing energy consumption (and resultant emissions).
3. Measurement of the 'world behind the screen' i.e., the lifecycle impacts of products, services and experiences from end-to-end.

Improving outreach

The list of current Creative Industries networks includes 60 networks that have a focus on entrepreneurship and technology (e.g., they run specialist events and sub-networks), together some level of membership in the Creative Industries. These may have potential to engage with Createchs, despite not having done so yet¹⁷. Examples include the Silicon Valley

¹⁷ Based on them have some level of engagement with the Creative Industries from a technological perspective, as well as offering entrepreneurial support.

Leadership Group in the USA, Pakistan Software Houses Association for IT & ITES, and the British Computer Society (BCS). If these organisations were incentivised to reach out to their members leading or working in Createchs, they could be a major source of peer support and KE. It is unclear why they haven't done so already, but the lack of visibility of Createchs and confusion over definitions are likely factors.

The workshops and online KE sessions that were organised provided additional insights into the Createch community's needs and behaviour. The changing definition of Createch and the challenges in engaging effectively with key industry figures underscore the need for clearer definitions and better-targeted outreach strategies. The randomness of attendance at drop-in events may simply be a fact of life, but more structured and regular scheduling might be more effective. These observations are lessons that all networks seeking to engage with Createch businesses need to take on board.

Conclusion and recommendations

Published CfSD research has repeatedly shown that Createch founders have sustainability on their agenda but are frequently forced to push the topic down the agenda due to business pressures and frustration in sourcing specialist support. This latest survey confirms an important message from prior CfSD research: the majority of Createchs are at Zero or Basic maturity when it comes to sustainability. The lack of specialist networks for Createch, and the fact that there are fewer still with a focus on sustainability clearly needs to be addressed.

The growth in the number of users of the CfSD Sustainability Tool shows that there is a demand for more information and practical guidance on sustainability tailored to Createch businesses. As one founder fed back, “this tool has confirmed for me that I know very little about regulations and best practice, but it has also given me a route to correct that.”

However, the feedback from users also shows that there is a need for more in-person support (such as mentoring) and KE: self-help does not appear to be sufficient.

This latest research, together with four years on interacting with Createch founders, CEOs and CTOs, provides a better understanding of the current networking and KE landscape and identified key areas for improvement. The research confirms the need for more emphasis on P2P networking (rather than top-down) and more effective KE. However, further research is required to understand whether these changes can be achieved through existing networks or by starting a new one. Additional research is also required to understand the lack of engagement observed.

Headlines such as “Google emissions jump nearly 50% over five years as AI use surges”¹⁸ illustrate the ongoing need to urgently address sustainability challenges in Createch. By addressing the structural and operational gaps in existing networks and enhancing the focus on sustainability KE, Createch businesses can move towards a future where their environmental impact is lower. Hopefully, the insights gained from this research should inform the development of more effective, inclusive, and sustainability-oriented Createch networks, ultimately reducing emissions and other harms within the Creative Industries.

Recommendations

1. Encourage the development of more flexible, inclusive P2P networks: For effective Createch engagement there is a need to transition from top-down, centralised networks to more flexible, inclusive P2P networks. Createch companies often work on the cutting edge of both technology and creativity. P2P networks facilitate dynamic KE, ensuring that the latest advancements and creative trends are quickly shared and integrated into projects. P2P networks help build a strong, supportive community and this is particularly important in an emerging sub-sector such as Createch, where a culture of openness, trust, and mutual support can significantly enhance business success. A transition to P2P could be an action for existing networks, but it may be necessary to consider a new network built from the ground up as a P2P solution for Createchs.

¹⁸ <https://www.ft.com/content/383719aa-df38-4ae3-ab0e-6279a897915e>.

2. Enhance the sustainability focus of existing networks: Too much of what is available to Createch businesses today is intended for other creative or technology businesses. There is a need to create tailored and relevant sustainability initiatives, resources and support capabilities for Createch founders, CEOs and CTOs. This can be achieved within existing networks or by developing a new one. For example, creating a working group to create best practices to lower carbon emissions by optimising software algorithms to reduce computation time for generative AI and hence energy consumption. More generally, existing Createch networks should integrate sustainability more deeply into their core activities. This can be achieved by developing specific sustainability initiatives (as has occurred in areas such as advertising, music and fashion), providing targeted education and resources, and fostering collaborations that prioritise sustainable outcomes.

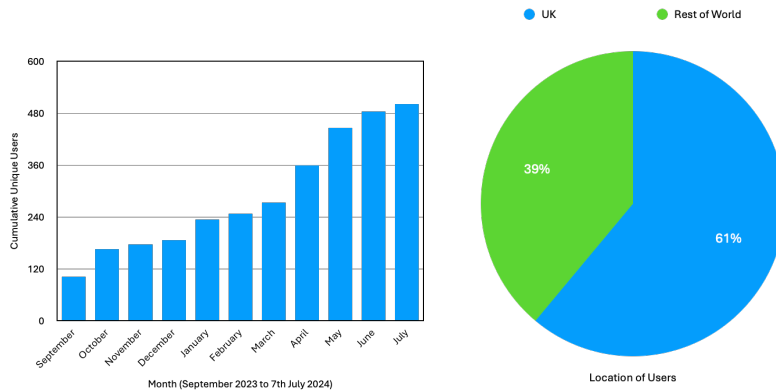
3. Address participation barriers: Reducing barriers to participation, such as time, cost and geographical constraints, is vital. For example, this could involve scheduling events in more locations (and not just in large urban centres and cities), conference discounts for MSMEs, arranging local gatherings to minimise travel difficulties and more hybrid events (in-person and livestreamed). Whilst social media offers a means to increase participation, these channels need to be handled carefully due to concerns about the perceived greater risk of trade secrets and other forms of intellectual property being reposted. Also, the latest survey results and feedback from tool users, show a marked preference for in-person events, with videoconferencing rated much higher than LinkedIn and Facebook Groups, for example. Holding hybrid events, with both in-person and livestreamed components, seems like a reasonable compromise.

4. Improve KE practices: KE will be enhanced by creating tailored programmes focusing on Createch-specific sustainability challenges and priorities. This should include practical workshops on energy consumption, lifecycle impacts and sustainable business models. Given the gap in understanding of the end-to-end lifecycle, a comprehensive programme that addresses decarbonisation of the end-to-end product lifecycle, from development to deployment, would be a sound starting point. There is also a need for further research to develop effective KE processes suited to the nature of Createch businesses. This could involve looking at other industries with similar characteristics to encourage two-way exchange between academic researchers and business users in Createch.

5. Provide regular forums for Createch leaders: Establishing regular, structured drop-in forums for Createch leaders to discuss sustainability and technology-related topics can provide the much-needed platform for P2P exchange. These forums should be well-publicised and targeted to ensure maximum participation. An international trade show or conference could be an option but would require substantial funding and commitment to achieve given the difficulties identifying and engaging with Createchs.

APPENDIX A – Sustainability Tool Lessons

The Sustainability Tool was launched in September 2023 and by July 2024 has over 500 users in 29 countries. For comparison, the Albert carbon calculator toolkit reached 818 users 12 months after launch in 2011:



The top 10 countries using the tool are:

- 🇬🇧 United Kingdom
- 🇱🇺 Luxembourg
- 🇺🇸 United States
- 🇳🇱 Netherlands
- 🇫🇮 Finland
- 🇨🇦 Canada
- 🇫🇷 France
- 🇩🇪 Germany
- 🇧🇪 Belgium
- 🇦🇹 Austria

The tool provides insights into hot topics for Createch founders, CEOs and CTOs. For example, the following pages are the most visited (in order of frequency):

1. The benchmarking questionnaire and associated results pages (e.g., how to drive action from the results).
2. Responsible content
3. Carbon calculation
4. The call to action
5. Sources of funding

The least visited is the supplier checklist (surprising, given that this was a common area of discussion in the design workshops for the tool).

85% of users simply access the content. 15% of users take the benchmarking questionnaire, typically two times or more.

Besides providing a source of benchmarking and authoritative self-help guidance, the creators envisioned the tool as a catalyst for P2P networking. For example, CfSD organised workshops and encouraged users to participate in drop-in sessions to discuss their challenges and potential solutions (see body of report). However, getting Createchs to attend these was challenging.

Based on the first nine months of operation, there are some key lessons:

- Tool user feedback (via an embedded SurveyMonkey survey) reinforces the appetite for sustainability knowledge and the need for in person networking and other forms of support. Self-help does not appear to be sufficient.
- The tool needs regular updates to content and to keep users returning (currently % return visits).
- Ongoing engagement requires ongoing communication with users over multiple channels (mailshots, LinkedIn etc).
- The hot topics shift over time (e.g. the R&D pages were the most visited initially after the benchmarking questionnaire, but that has now shifted to responsible content).
- Tool users benefit from drop-in sessions, although the number of attendees can vary greatly.

APPENDIX B – Networks at the intersection of Createch and sustainability

To be included in this list, the following criteria were used:

Relevance to Createch:

- The network should clearly demonstrate a focus on Createch i.e., they use the word ‘Createch’ in a manner consistent with the CfSD definition or another recognised definition.
- The network should actively support activity and events relevant to Createch founder, CEOs and CTOs. This includes showcasing successful Createch businesses, organising exhibitions, conferences, or webinars
- The network should offer tailored support for starting and growing Createch businesses, helping members to expand their impact and reach.

Integration of Technology and Creativity:

- The network should support and promote technological innovation that enhances creative processes. This includes fostering the development and use of cutting-edge technologies like AI, AR/VR, and blockchain.
- The network should facilitate collaboration between technology experts and creative professionals, encouraging interdisciplinary working and KE.
- The network should highlight and support projects and businesses that exemplify the successful integration of technology and creativity.

Commitment to Sustainability:

- The network should have active programmes aimed at reducing environmental impact within the Createch sector. This includes promoting energy-efficient technologies, reducing carbon emissions, and advocating for sustainable production practices.
- The network should advocate for sustainability within the Createch industry, including efforts to influence policy, set industry standards, and raise awareness about the importance of sustainability.
- The network should engage its members in sustainability efforts, offering resources, workshops, and training on sustainable practices specific to Createch.

Although all of the networks listed met these criteria, in some instances the focus on Createch and sustainability was a recent development.

Region	Based	Network	URL	Sub-Sector Alignment
Western Europe	UK	Centre for Sustainable Fashion	https://www.arts.ac.uk/research/research-centres/centre-for-sustainable-fashion	Fashion
UK	UK	University of Westminster	https://createch.london/about	Software, IT and Createch
Central and Eastern Europe	Bulgaria	CreaTech Bulgaria Cluster	https://www.createch-bulgaria.com	Software, IT and Createch
Europe	Multi	Creative Europe	https://ec.europa.eu/programmes/creative-europe/contact_en	Film and TV
UK	UK	Digital Catapult	https://www.digicatapult.org.uk/	Software, IT and Createch
Europe	Multi	Enterprise Europe Network (EEN) - Cultural and Creative Industries Sector	https://een.ec.europa.eu	General Creative Industries
Europe	UK	MyWorld	https://www.myworld-creates.com	Software, IT and Createch
Caribbean	Barbados	National Cultural Foundation	https://ncf.bb/business-for-creatives/	General Creative Industries
Europe	Turkey	Technology and Creative Sectors Entrepreneurship Association (TechCreas)	https://techcreas.com/en/	Software, IT and Createch

**The Centre for Sustainable Design®, Business School for the Creative Industries,
University for the Creative Arts**

The Centre for Sustainable Design® (CfSD) was established in 1995 in Farnham, Surrey, UK at what is now the University for the Creative Arts (UCA). CfSD is based within the Business School for the Creative Industries (BSCI). The Centre has led and participated in a range of high-quality research projects and has organised hundreds of conferences, workshops and training courses in Europe, Asia and North America focused on sustainable innovation and product sustainability. CfSD is recognised worldwide for its knowledge and expertise, having worked closely with business, policy making and research communities for two decades. CfSD has built world-class knowledge and expertise of sustainable innovation and product sustainability. The Centre completes research and disseminates an understanding of present and future sustainability impacts and solutions related to innovation, products, technologies, services and systems through projects, training, events, networks, and information. CfSD works with partners in Europe, Asia, and North America to deliver high quality results. CfSD have led and partnered in 15+ European Commission funded projects (www.cfsd.org.uk/projects) and has actively worked with 500+ eco-innovative SMEs. The Centre is an internationally recognised centre of excellence. CfSD has two areas of core competence based on extensive research since the mid-1990s (www.cfsd.org.uk/research). CfSD integrates Circular Economy into its broader sustainable innovation and product sustainability activities (<http://cfsd.org.uk/news/circular-economy-innovation/>):

- Sustainable Innovation (understanding the policy and business implications of sustainable innovation; and working with companies to develop sustainable solutions)
- Product Sustainability (understanding the organisational, management, development and design implications of product sustainability)

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Trevor Davis & Associates Ltd

Trevor Davis & Associates Ltd is a strategic insights and technology consultancy business. The company's focus is on stimulating business leader and policymaker action to harness technologies such as AI and blockchain for a more sustainable future for FMCG brands and Agriculture:

- Research, surveys, and industry insight
- Strategic analysis
- Points of view & executive education
- Design & prototyping

Trevor Davis & Associates Ltd was founded by Dr. Trevor Davis, a Fellow of the Royal Society of the Arts, and a former IBM Distinguished Engineer.

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