







The Circular Economy in the Creative Industries Progress, Challenges, and Hard Truths

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Executive Summary

Context

This report positions the Circular Economy as a framework that contributes to the broader goals of Sustainable Development (the overarching concept concerned with balancing environmental, social, and economic objectives). The Circular Economy aligns particularly with several key UN Sustainable Development Goals (SDGs), including:

SDG 12: Responsible Consumption and Production
SDG 13: Climate Action
SDG 9: Industry, Innovation, and Infrastructure
SDG 8: Decent Work and Economic Growth

While Sustainable Development provides the wider vision, the Circular Economy focuses specifically on resource cycles: keeping materials, products, and components (or *value*) in use for as long as possible in economies and societies. In this way, the Circular Economy reduces environmental impact, enables more efficient resource use, and supports green innovation.

This report sets out to provide insights and recommendations for the organisations in the Creative Industries and for the Sector. It does not provide advice on shifting an economy from linearity to circularity i.e. system transition at a macro level. Hence, this report makes clear where we are discussing big-picture systems like national policy and infrastructure, and where we are discussing the Sector and what individual businesses and creative professionals can do in their own work.

Introduction

ISO 59004 Circular Economy Definition

ISO 59004 was published in 2024 and defines the Circular Economy as an "economic system that uses a systemic approach to maintain a circular flow of resources, by recovering, retaining or adding to their value, while contributing to sustainable development." The Creative Industries need to act now to advance the Circular Economy as while Circular Economy principles are widely valued they are poorly understood and inconsistently applied, risking future competitiveness and relevance.

This report explores the current state of progress toward a Circular Economy in the Creative Industries, drawing on online analysis of more than 54000 results, 80 responses to a global survey, and a critical review of over 70 national Circular Economy strategies completed by The Centre for Sustainable Design® at the University for the Creative Arts. The report offers the most comprehensive picture to date of how different sub-sectors of the Creative Industries understand and apply circularity principles, identifies key barriers to adoption, and provides targeted recommendations for action.

Why act now

The Creative Industries face increasing pressure from audiences and consumers to demonstrate environmental responsibility¹. With their complex value chains, growing reliance on digital technologies

¹ For examples see albert. (2023). *Annual Review*. BAFTA albert. Retrieved

from https://wearealbert.org/2024/08/06/bafta-albert-releases-2023-annual-review/ and McKinsey & Company &

and artificial intelligence (AI), and significant cultural influence, they have a unique role to play in advancing Circular Economy practices. However, the Sector remains underrepresented in policy (most national strategies omit it entirely), underprepared in terms of capability (with few professionals trained in circular methods), and underserved in terms of support infrastructure (with limited investment in reuse networks, material libraries, or circular procurement tools tailored to the sector).

Key findings

Understanding remains fragmented in the Creative Industries. The Circular Economy concept is widely recognised as important, but definitions vary, and few feel confident in applying the concept. Businesses are more familiar with specific, practical strategies such as Refuse, Rethink, Reduce, Reuse, Repair, Refurbish, Remanufacture, Repurpose, Recycle, Recover, Regenerate, Redesign (the so-called 12 R strategies).

While Reuse and Recycle strategies are commonly practised, broader systemic strategies like Refuse, Regenerate, and Redesign are less understood or implemented.

Only 36% said they were very knowledgeable or expert concerning the Circular Economy

44% of survey respondents identified themselves as at a Basic level of organisational maturity in relation to Circular Economy. This suggests that they still engaged in early-stage efforts, such as recycling initiatives or minimal use of recycled materials, but were not making systematic changes.

Digital and data infrastructure is overlooked: Sub-sectors such as Gaming, Film, Advertising, and Createch are increasingly digital, but the environmental costs of cloud computing, data centres, and Aldriven production are rarely addressed in either practice or policy.

Freelancers and MSMEs dominate, but are unsupported: The sector is largely made up of small players who lack the time, resources, and training to explore or implement circular practices. Despite this, they are often early adopters and drivers of innovation.

National Circular Economy strategies don't reflect the sector's structure or potential: Most national CE strategies focus on physical waste in manufacturing and construction. The Creative Industries are rarely mentioned, and where they are, it's usually in reference to fashion waste or eco-branding. Assessing national Circular Economy strategies, the current policy themes are:

- Waste and Recycling: The dominant policy focus, with initiatives such as Extended Producer Responsibility (EPR) and Digital Product Passports.
- Sustainable Manufacturing: Promotion of circular industrial zones, material efficiency, and incentives for using eco-friendly processes and secondary raw materials.
- Circular Product Design: Adoption of "circular by design" and eco-design standards, with some mandating product durability and repairability.
- Digital and Data Solutions: Investment in smart city infrastructure alongside experimentation with Al-driven sorting, and blockchain for material traceability.
- Green Public Procurement: Policies to drive demand for circular goods and services through sustainable purchasing in Public Sector projects, particularly in construction.

Business of Fashion. (2022). The State of Fashion 2022. Retrieved from https://www.mckinsey.com/industries/retail/our-insights/state-of-fashion

Circularity themes in narratives and content can exert a powerful influence on consumer and audience behaviour. Many creative organisations produce media, entertainment, and marketing content that could shift cultural norms and encourage sustainable behaviours but currently fewer than half of the respondents to the survey include Circular Economy messaging in their output.

Knowledge gaps

A major theme running through the research completed by The Centre for Sustainable Design[®] is the lack of foundational knowledge over how circularity applies across Creative Industry value chains. Using a visual framework that highlights research gaps, the report identifies 16 critical areas in need of further exploration, including:

- Sector-specific definitions and frameworks
- Metrics and indicators for circular progress
- Digital infrastructure and AI impact
- Role of academia and knowledge transfer
- Understanding overconsumption and how to change behaviour

Recommendations

To address these challenges and unlock the Creative Industries' potential in the circular transition, the following actions are recommended.

For companies in the Sector

- Build internal capability and foster a circular mindset:
 - Integrate Circular Economy into existing sustainability strategies and plans.
 - Make someone accountable for policies for the Circular Economy.
 - Use simple tools like circularity checklists (see example checklist for the first 100 days of circularity), short workshops, or creative brief templates with circularity prompts to raise awareness. Tap into external networks, training providers, and peer communities to share knowledge and develop skills over time.
 - Collaborate with industry associations and educational institutions to develop programmes that promote sustainability.
 - A culture of circular thinking starts with informed and engaged teams.
- Embrace circular design² principles to support product life extension and enable reuse, repair, and recycling:
 - Focus on creating content, products, services, and experiences that can be repurposed, repaired, or reconfigured, such as costumes with modular elements, digital assets usable across projects, or stage sets built for disassembly and reuse.
 - Collaborate early with production teams, designers, and suppliers to embed circular thinking into project planning. Making reuse and modularity part of the brief from the start ensures better outcomes and avoids costly redesigns or retrofits later in the process.

² Circular design is closely linked to the 12R framework (see Appendix B – Recommended Reading for additional information). New circular design standards for textiles and product policy frameworks (e.g. Ecodesign for Sustainable Products Regulation) are also raising expectations around durability, repairability, and recyclability. See also European *Standard EN* 45560:2024 - Method to achieve circular designs of products.

- These approaches reduce material waste, improve durability, extend value, and reduce costs.
- Experiment with material and production changes:
 - Trial eco-friendly or circular alternatives such as switching to recycled or biomaterials, reusing packaging, or cutting energy use in post-production.
 - Even one lower-impact decision per project can build momentum and demonstrate early wins to clients and collaborators (but be careful to identify any trade-offs).
 - This approach not only reduces environmental impact but also appeals to environmentally conscious consumers and audiences.

For all stakeholders

- 1. Prioritise closing knowledge gaps through academic–industry collaboration e.g., fund joint research hubs on circular innovation in creative production (e.g., set reuse, sustainable materials, digital emissions).
- 2. Map and respond to Sector-specific needs and priorities e.g., conduct targeted sub-sector deep dives (e.g., fashion vs gaming) to understand differing
- barriers and opportunities
 3. Make the business case for circular business models more tangible e.g., showcase case studies like Mud
- Jeans (rental model) or National Theatre Green Store (shared set reuse).
- Design and deploy Sector-friendly circular standards and frameworks e.g., Promote adoption of evolving CEN³ circular design standards.
- 5. Invest in targeted Circular Economy skills and training e.g., embed Circular Economy learning outcomes in creative education (e.g., design degrees, film schools, games development).
- 6. Build infrastructure for circular practice in production e.g., fund refurbishment or repair networks for creative tools and hardware (e.g., lighting, cameras, digital rigs).
- 7. Use creative outputs to shift culture and behaviour e.g., e.g., commission public campaigns that model circular living using entertainment or visual culture formats.

There are economic and social risks of not including Creative Industries in Circular Economy strategies:

- Wasted cultural influence to drive behaviour change.
- Missed innovation opportunities.
- Failure to future-proof an important economic Sector.
- 8. Include the Sector in policy and regulation design from the start e.g., engage creative Micro, Small, and Medium Enterprises in Circular Economy strategy consultations and innovation funding schemes.
- 9. Recognise the environmental impact of digital and AI Workflows e.g., support tools to measure and reduce carbon impacts of streaming, rendering, and training AI models.

³ CEN, the European Committee for Standardization, is an association that brings together the national standardisation bodies of 34 European countries.

Conclusions

The breadth and diversity of the Creative Industries, ranging from materially intensive activities like set construction to intangible outputs such as digital media, requires a nuanced approach from all stakeholders to address the challenges, and secure the potential benefits, of the Circular Economy.

All businesses in the Creative Industries have a dual opportunity. They can make their operations and supply chains more circular, and they can lead by example inspiring audiences, consumers, and citizens to make their own circular choices. But without coordinated policy support, clear standards, and strong evidence of value, their progress will remain uneven.

100-Day Circular Economy Starter Checklist

1. Build Awareness and Understanding (Days 1–20)

□ Identify someone to take ownership of Circular Economy policies (e.g. make it someone's role to integrate circularity into the businesses' sustainability policy).

□ Schedule a short team session to introduce the basics of the Circular Economy and R strategies.

□ Read or watch 2–3 introductory resources relevant to your sub-sector (e.g. film, design, digital). □ Map your main material/resource flows (what do you buy, use, waste, discard?).

□ Join a relevant creative sustainability network or mailing list that has a focus on circularity (e.g. Julie's Bicycle, The Centre for Sustainable Design®, AdGreen).

2. Start Measuring and Auditing (Days 21–40)

□ Choose one product/project/production to assess for resource impact (including energy-efficient practice).

□ Identify your 2–3 most common waste types (e.g. offcuts, packaging, digital storage).

□ Begin basic tracking of resource use and sources of waste (spreadsheets are fine).

 \Box Ask suppliers about take-back, reuse, or recycled-content options.

 \Box Set at least one realistic short-term goal based on your priority R strategies (e.g. reduce single-use packaging by 20%).

3. Take Action on Resource and Material Use (Days 41–60)

□ Create a "circularity checklist" based on priority R strategies for future production briefs or product plans.

□ Trial a reuse or repair scheme (e.g. prop reuse, repair of equipment, refilled ink).

□ Switch to a circular or lower-impact material in one project (e.g., incorporate recycled or upcycled materials into a product, performance or production).

□ Start digital decluttering to reduce storage energy (delete/archive old files).

□ Reuse packaging or containers where safe and practical.

4. Collaborate and Learn (Days 61-80)

 \Box Speak to another business or peer about their circularity journey and quick wins.

 \Box Explore local or sector-specific reuse or surplus-sharing platforms.

□ Attend one webinar or in-person event on circular design or circular strategies for production.

 \Box Ask your team what circular ideas they have (i.e. host a 30-minute idea session.

□ Reach out to a local college, university, or network about joint circular initiatives or student projects.

5. Communicate and Commit (Days 81–100)

□ Draft a short internal circularity statement with your goals and first actions.

□ Share a small "circular win" on social media or in a client conversation.

□ Identify at least one longer-term priority to work toward (e.g. zero waste sets, modular design, digital sustainability).

 \Box Add a circularity question or prompt to creative briefs or supplier conversations.

□ Schedule a 6-month review: what worked, what didn't, and where next?

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1. Context

This report positions the Circular Economy as a framework that contributes to the broader goals of Sustainable Development (the overarching concept concerned with balancing environmental, social, and economic objectives). The Circular Economy aligns particularly with several key UN Sustainable Development Goals (SDGs), including:

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This report sets out to provide insights and recommendations for the organisations in the Creative Industries and for the Sector. It does not provide advice on shifting am economy from linearity to circularity i.e. system transition at a macro level. Hence, throughout this report, we draw distinctions between the application of Circular Economy principles at three interconnected levels:

National Economy or Society level: Including national and international Circular Economy strategies, global policy frameworks, and systemic infrastructure challenges (e.g., data centres, e-waste, policies for Extended Producer Responsibility).

Sector level: Focuses on how Creative Industries sub-sectors (e.g., Fashion, Film, Createch) interpret, engage with, or are targeted by circular policies and standards.

Organisational level: Refers to how individual businesses, freelancers, and institutions integrate circularity into their own operations, including design, production, procurement, and content creation.

2. Introduction

When people in the Creative Industries read the phrase, "Circular Economy", what exactly does that mean to them? The Circular Economy has gained increased visibility since the early 2010s and numerous definitions exist¹. For example, the Ellen McArthur Foundation have developed an oftenquoted definition that the "Circular Economy is a system where materials never become waste and nature is regenerated". Contrast that with the latest International Standards Organization definition (the result of a multi-year consensus process amongst circa 180 countries) which positions the Circular Economy as an:

¹ For example, over 100 definitions were identified in *Kirchherr, J., Reike, D., & Hekkert, M. (2017). Conceptualizing the circular economy: An analysis of 114 definitions. Resources, Conservation and Recycling, 127, 221–232.*

"...economic system that uses a systemic approach to maintain a circular flow of resources, by recovering, retaining or adding to their value, while contributing to sustainable development."

The Creative Industries encompass both physical product and materials-based sub-sectors, such as Fashion, Product Design, and Crafts, and less physical, content-driven sub-sectors like Advertising, Film and Gaming. In the Sector, Circular Economy strategies are most commonly applied to the sub-sectors that produce physical products or "things", with Fashion being the most prominent example. This focus on Fashion is understandable, given that global textile waste now exceeds 92 million tonnes annually². However, even in Fashion there is often (to borrow from a recent Green Alliance publication³) a lack of thinking "beyond the bin" as the focus is usually only on recycling of textile waste and garments i.e. there is a lack of lifecycle thinking⁴.

But the fashion and textiles are not the only part of the Creative Industries that consumes resources at scale. The sets for a major motion picture can resemble a small city, architects make decisions every day that profoundly impact the built environment, and designers' influence everything from the materials used in everyday products to the ability to repair and reuse items.

This report was born out a desire to better understand the attitudes and progress of individuals, companies, and policymakers towards a Circular Economy, and explore the relationship between the Circular Economy and all sub-sectors of the Creative Industries.

Hence, this report ultimately seeks to answer questions such as:

- What are the views of the people who work in the Sector about the Circular Economy? For example, is there a common understanding of the Circular Economy across the Creative Industries?
- What are the examples of good practice in the different sub-sectors?
- How do the sub-sectors that produce intangible outputs (e.g., digital, experiential, or conceptual creations) think about the Circular Economy?
- Do policies and standards match the needs and priorities of the sector? Are the Creative Industries even included in the scope of national strategies for the Circular Economy?
- Which circular business models are commercially viable?
- Where do non-material resources such as energy (and concepts such as Net Zero) fit into the Circular Economy?
- What is the impact of new technologies, such as generative artificial intelligence (AI)?

Why now?

This report is timely as the Creative Industries face growing pressure to address environmental impacts across their value chains. While the focus remains on sub-sectors that produce physical goods, there is increasing awareness of the environmental impact of digital technologies (electronic waste, critical minerals for batteries and devices, and concrete to build data centres for AI, energy, water etc).

² Niinimäki, K., Peters, G., Dahlbo, H. et al. The environmental price of fast fashion. Nat Rev Earth Environ 1, 189–200 (2020). https://doi.org/10.1038/s43017-020-0039-9

³ https://www.beyondthebin.co.uk

⁴ Lifecycle thinking is the holistic approach that considers the entire journey of a product or service from raw material extraction, design, production, distribution and use, through to end-of-life treatment such as reuse, recycling, or disposal. Rather than focusing on a single stage, it evaluates environmental and resource impacts at every point in the lifecycle. Without lifecycle thinking, Circular Economy efforts risk being piecemeal, addressing symptoms like waste rather than the systemic causes embedded in design, production, and consumption patterns.

Governments, industry bodies, and global organisations are accelerating efforts to transition towards circular models, with policy frameworks such as the 1st and 2nd EU Circular Economy Action Plans and China's 14th Five-Year Plan, as well as long-term regional visions such as the Framework for Circular Economy for the ASEAN Economic Community increasingly influencing business practices in multiple sectors. At the same time, the climate crisis and rising resource scarcity are reshaping consumer expectations and driving demand for more environmentally friendly creative outputs.

Despite their significant cultural and economic contributions, most creative sub-sectors are underrepresented in Circular Economy discourse. As creative businesses increasingly engage with issues such as material reuse, eco-design, sustainable production, and digital dematerialisation, there is a critical opportunity to spotlight innovation, share examples of good practice, and ensure that the Creative Industries play a proactive role in shaping a more circular and resilient world.

The scope of this report

This report examines the status of the Circular Economy in the context of the Creative Industries Sector (and individual sub-sectors), organisations working in (or supplying) the Sector, and the broader policy context. The report includes an analysis of online sources, a survey of professionals working in the Sector and its value chains, and a critique of current national Circular Economy strategies, roadmaps, and plans.

At a national and international level, there are various cultural and creative economy classifications and definitions in use. For example, UNESCO use the phrase "Cultural Economy" to encompass a wide array of cultural and heritage practices and contemporary art forms (many receiving state assistance via grants), while UNCTAD use the phrase "Creative Economy" with the focus on generation of economic value through the creation, production, distribution, and consumption of creative and artistic goods, services, and experiences⁵.

Within these broad definitions, the Creative Industries are made up of organisations with market-driven objectives that rely on creativity and intellectual capital as their core inputs. Their outputs may be tangible or intangible, ranging from product-based sub-sectors like Fashion and Product Design to content-driven sub-sectors such as Advertising, Film, and Digital Media. However, there are overlaps and synergies with cultural and artistic organisations in areas such as skills and education.

The Creative Industries increasingly rely on complex and fragmented supply chains, involving a wide range of suppliers, from material producers and fabricators to freelancers, digital service providers, and small production studios. While these organisations may be classified as external to the Creative Industries, they play a critical role in enabling creative outputs and must be considered in any assessment of circularity, sustainability, or sector-wide impact.

The Creative Industries definition used in this report is based on that developed by the UK's Department of Digital Culture Media and Sport (DCMS). In general, "arts and culture" (e.g., museums, heritage locations, fine art) are out of scope of this report. Circular Economy strategies typically apply more directly to sectors involving tangible goods, digital production, or scalable services, so while arts and culture play a vital role in shaping values and narratives around sustainability, their operational characteristics differ significantly from those sub-sectors that align closely with market-driven creative production. As such, including them would broaden the scope beyond the report's core analytical

⁵ For more information, see

https://elearning.unctad.org/pluginfile.php/34258/mod_page/content/24/KBokor%201_CE%20Outlook%20and%20othe r%20research.pdf

focus. An exception has been made for Theatre and the Performing Arts as an emergent finding from this research is that their complex production processes (e.g., sets, costumes, touring logistics) that intersect with material use, energy consumption, and waste generation make them particularly relevant for analysis under a Circular Economy lens.

Hence, the sub-sector scope is:

- Advertising and Marketing
- Architecture
- Crafts
- Design (Product, Graphic, and Fashion Design⁶)
- Film, TV productions, TV, Video, Radio, and Photography (incl. Streaming Media)
- Game Design and Game Publishing
- IT, Software and Computer Services (including business to business Createchs)
- Publishing
- Music, Performing and Visual arts (including Theatre, Events, and Festivals)

In the case of architecture, the focus of the report is on design and planning of buildings and structures rather than the waste management associated with construction.

For Fashion, the emphasis is on the design side of the Fashion value chain, rather than the waste management associated with textiles, garment manufacturing, and household waste management post consumption. Hence, included in scope are the processes involved in predicting demand and trends, designing new styles, selecting fabrics and other materials, and material innovation (e.g., bioengineering).

There is a swift evolution of the Creative Industries' value chains driven by innovation in IT hardware, software, and computer services. There is a growing significance of technologies like generative AI in virtual production for TV and Film, and in content generation for Advertising, Gaming, etc. This shift highlights the need to include in the report a discussion of construction and operation of data centres, Green IT practices, and electronic waste management.

⁶ In this document, sub-sectors such as Fashion are usually capitalised when referring the sub-sector, but other in other they are not.

3. Listening to the voice of the Sector

The Creative Industries are masters of communication and storytelling, and this can obscure the harder reality behind statements about environmental sustainability and circularity. So, to understand the reality of the Circular Economy across the disparate sub-sectors, two approaches have been used to cut through the noise:

- Advanced text analysis and data mining to explore what people are saying online about the Circular Economy, and to find real-world examples of circular activity in different organisations, and at the Sector level. This analysis helps to measure how much people are talking about the Circular Economy and to identify what they are saying. The results are presented in this section of the report.
- A global survey of creative professionals representing organisations in the Sector and suppliers to the Sector (screening out those studying or advising organisations in the Sector). These results are presented in the next section of the report.

Mining the talk

Mining online discussions (usually referred to as "chatter") is valuable because it is a proxy for listening in on real-life conversations, opinions, and experiences across various communities. However, analysing online chatter is challenging because the content is vast, unstructured, and constantly changing, often filled with informal language, slang, and noise that can obscure meaningful insights. Determining relevance and context across diverse sources requires careful filtering and interpretation, hence the authors constructed a structured process for collecting and analysing online content related to the Circular Economy and the Creative Industries.

R Strategies

R strategies in the Circular Economy refer to practical actions that promote resource efficiency by extending lifecycles and reducing waste. These strategies help shift the focus from linear "take-make-dispose" models to circular systems that keep resources in use for as long as possible.

For this report, the 12R framework derived from Jaqueline Cramer's work is used:

Refuse, Rethink, Reduce, Reuse, Repair, Refurbish, Remanufacture, Repurpose, Recycle, Recover, Regenerate, Redesign.

Cramer, J. (2017). The Raw Materials Transition in the Amsterdam Metropolitan Area: Added Value for the Economy, Well-Being, and the Environment. *Environment: Science and Policy for Sustainable Development.* The process (or pipeline) begins by searching the web for relevant information using a specialised search engine that can search multiple search engines in parallel using a series of compound queries. Next, the output is saved and cleaned up for analysis (e.g., removing advertisements, off-topic text, duplications and obvious promotional and marketing materials). The clean content is then converted to a standardised form and examined using custom software to identify common themes and keywords associated with the Circular Economy concept. To help with analysis, the results are normalised, grouped by R strategy and sub-sector, and visualised using charts and heatmaps. Key insights from the various outputs are summarised using a Large Language Model⁷ to produce clear, accessible reports for human analysis. This helps make sense of large amounts of information and spot important patterns and trends across subsectors.

⁷ A large language model (LLM) is an AI system trained on vast amounts of text to understand and/or generate human-like language.

Circular Economy chatter by sub-sector

The searches yielded over 54000 search results from 2018 to the present, of which 4791 met all the criteria for relevance to the research⁸. This is a smaller number of results than might be expected for related sustainability topics in the Creative Industries. For example, net zero would likely yield twice the volume of results or more.



Figure 1 shows the breakdown of chatter by sub-sector.

Figure 1 Volume of Chatter by Sub-Sector.

The top five sub-sector breakdowns account for just over 80% of the chatter:

- The Circular Economy is discussed more in the context of Fashion than any other sub-sector. Fashion appears twice: first, in the context of textiles, garment manufacturing, and associated waste streams, accounting for just over a fifth of the chatter. Secondly, in Design, as Designer Fashion and Haute couture. Design in total accounts for 18% of the chatter.
- After Fashion comes Film, TV productions, Video (including streaming), Radio (including podcasting), and Photography with 17% of the chatter, then Music, Performing and Visual Arts (including Theatre, Events, and Festivals) with 16% of the chatter.
- Posts on information and communication technologies (ICT) and the Circular Economy (specifically software development, computer services etc) account for 10 % of the chatter.

A surprising finding is that Architecture contributes only 7% of the chatter found. A cursory search of the web suggests that the number should be higher. There may be several reasons for this: post 2018 the Architecture profession increasingly uses phrases such as "regenerative", "carbon neutral buildings", "adaptive reuse", "circular construction", and "adaptable". These phrases were not searched for. Also, while chatter from Architecture studios was searched for, architecture-related posts from sources self-identifying as consultancies may have been screened out.

The remaining sub-sectors totalled contribute approximately 10% of the chatter.

⁸ The key criteria are: must be unique (not a duplicate or AI re-write), user-generated (i.e. people in the Sector writing about the Sector), discussion focused on the Circular Economy and one or more Creative Industries sub-sectors, over two sentences long, not an academic or consultancy piece, not paywalled, and not an advertisement or promotion.

This high-level analysis suggests that the Circular Economy remains a relatively niche topic of conversation, confined to a few sub-sectors.

Content of the discussions

The numbers tell only part of the story. The dataset reveals a broad spectrum of Circular Economy activity discussed across the Sector. The most common mentions are:

- Circular Economy strategies (e.g. reuse, repair, recycle, regenerate, etc).
- Use of recycled or upcycled materials in products, sets, costumes, or installations.
- Circularity related design approaches (e.g., cradle-to-cradle, eco-design, modularity, etc).
- Business models based on access over ownership, such as leasing, sharing, or subscription services.

While much of the discussion is about what *should* be done, there is also action being taken. Illustrations of Circular Economy uptake include:

- *I Was A Sari*, a circular fashion brand based in India, creatively repurposes discarded sari scraps into stylish new garments and accessories. Embracing the principles of upcycling and zero waste, the brand transforms leftover fabric into reusable products, significantly reducing textile waste. Beyond environmental sustainability, *I Was A Sari* also generates meaningful social impact by providing employment and vocational training to underprivileged women across India.
- *Mud Jeans* headquartered in the Netherlands exemplifies a business in transition towards a fully circular model. The company embeds Circular Economy principles directly into its design processes, ensuring sustainability is considered from the outset. Its jeans incorporate up to 40% post-consumer recycled denim, sourced from discarded garments, and each pair is designed to be fully recyclable after use. To further their commitment to sustainability, Mud Jeans conducts Life Cycle Assessments (LCA) to evaluate and understand the environmental impact of every product they create.
- Universal Pictures' Green Productions in the United States has embraced Circular Economy strategies across its major film productions. The studio integrates sustainable practices such as waste diversion, the use of biodegradable set materials, and energy-efficient lighting systems, all within LEED-certified facilities. Their GreenerLight Program, an extension of the existing Sustainable Production Program, embeds sustainability from the earliest stages of script development through to full-scale production.
- The Roskilde Festival in Denmark has positioned itself as a hub for circular innovation. Through its Circular Lab, the festival seeks to engage at least 200 young entrepreneurs in crafting the circular solutions of the future. Sustainability is embedded throughout the event—from replacing diesel generators with renewable energy sources, to operating a reusable cup and bottle deposit scheme that encourages return and reuse. Eco-campsites promote zero-waste behaviours, while a clean-up volunteer programme fosters waste separation and recycling. Even the infrastructure (stages, bars, and furniture) is built from recycled or repurposed materials.
- Wuppertal Tanztheater in Germany has emerged as a pioneer in sustainable costume design for contemporary dance. The company integrates circular fashion practices by embracing eco-friendly and upcycled materials, setting a standard for sustainability in the Performing Arts sub-sector. In the past, they have collaborated with the Wuppertal Institut für Klima, Umwelt, Energie to organise workshops to assist young changemakers use the stage as a "field of experimentation" for the topic of sustainability and the reuse of materials previously thought of as disposable.
- In the United States, the Broadway Green Alliance collaborates with theatres to advance sustainability on and off the stage. Their initiatives include eliminating plastic waste, transitioning to

LED lighting systems, and promoting Circular Economy principles in both costume and set design, making Broadway a greener place.

- **The UK's National Theatre Green Store** is a large-scale facility dedicated to the storage and reuse of costumes and props. This resource is designed to inspire theatre designers from the earliest stages of production, encouraging them to creatively repurpose existing materials while still achieving their artistic vision.
- **US company Microsoft** has established corporate policies to advance circularity in the technology Sector through a range of initiatives focused on hardware and software, including its Xbox gaming consoles. The company has launched a network of "Circular Centers" to process decommissioned cloud servers and hardware. These centres sort and intelligently redirect components for reuse or repurposing, supporting Microsoft's commitment to a circular design framework. Efforts also include reducing the material inputs in product manufacturing, improving the repairability and recyclability of devices, and implementing take-back schemes to extend product lifespans.
- *MPB (headquartered in Brighton, Brooklyn, and Berlin)*, is the world's largest online marketplace for used photographic and video equipment. They claim to recirculate around 570,000 cameras and lenses each year. By facilitating the buying, selling, and trading of pre-owned gear, MPB supports a Circular Economy within their niche in the Visual Arts. Beyond equipment, the platform also educates its users about circularity practices in related areas of Visual Arts, Film, and Television, including costumes, food, and musical instruments.

Except for Architecture, Product and Packaging Design, and Fashion, there are few mentions of important topics such as zero-waste or low-waste production methods, partnerships with circular suppliers, regulations (e.g., for extended producer responsibility or digital passports), certifications, or standards (e.g. B Corp, ISO 14001, Green Mark, Julie's Bicycle Creative Green certification).

Use of digital technology, such as virtual sets, XR experiences, or digital prototyping appear across the dataset. Sometimes this is in the context of reducing material impact (dematerialisation), but more often the mentions are from the perspective of a broader shift in working practices, especially in subsectors such as Advertising, Film, TV, and Theatre. Examples include:

- Location and set construction savings for advertising shoots, film and TV productions. By projecting digital backdrops on LED walls, productions can avoid building multiple physical sets or travelling to remote locations. This can significantly reduce carbon emissions from transportation of cast, crew, and materials.
- Virtual production. LED volumes and real-time rendering associated with significant energy not only to power the displays themselves but also to cool the environment. High-end gaming GPUs and real-time rendering systems push energy demands even higher. Also, virtual production relies on specialised cameras, trackers, servers, and screens. As technology advances, older models quickly become obsolete. Without robust e-waste management or buyback schemes, this specialised hardware risks ending up in landfills.
- Complex material streams. High-end LED panels and GPUs contain rare earth metals and other critical minerals. Poor recycling processes mean these resources are lost rather than re-circulated into new products.
- Data centres. Storing massive high-resolution footage and 3D assets in data centres consumes considerable energy, often unaccounted for in production budgets or environmental impact assessments. Data centres also require water for cooling, adding an often-overlooked resource impact to the supply chain.

A recurring theme in the online discussions is the way that AI is increasingly woven into the value chain of all sub-sectors of the Creative Industries. Behind the scenes, AI relies on vast computing power, specialised hardware, and extensive data operations, all of which create notable energy, water, and

material demands (e.g., concrete for building data centres), and all of this is growing in scale. This can have a profound, if indirect, sustainability impact that some hope that circularity can mitigate. However, the precise impact of AI, and the potential beneficial role of circularity, is not well understood or articulated.

Although there is discussion of the need to reduce overconsumption and overproduction, especially in consumer products and fast fashion, there is little sign of any sizeable practical steps to do so.

The different 12 R strategies employed

Figure 2 is a heatmap of how often the different strategies are mentioned in the search content⁹. The higher the number and darker the shading, the greater the occurrence of a strategy in the text for a given sub-sector (and hence greater engagement with the topic).

As the search results are snippets of text of differing length, the frequency of occurrence of each strategy has been normalised to mentions per thousand words of text. Also, to highlight some of the differences below sub-sector level, some segments have been analysed separately (e.g., Createch, Shoes and Footwear).



Figure 2 Breakdown of R Strategy by Sub-Sector and Below ("Industry Segment")

Across the Creative Industries, the most frequently mentioned 12R strategies are Rethink, Redesign, and Recycle, indicating a strong emphasis on strategic innovation, reimagining products and services, and managing material flows. In contrast, Refuse, Refurbish, and Remanufacture are the least mentioned, suggesting lower engagement with strategies that require significant shifts in consumption patterns or industrial-scale processes. Interestingly, in the Creative Industries, the commonly used "Reduce, Reuse, and Recycle" mantra does not appear to apply. While "Reduce, Reuse, and Recycle" is a widely recognised slogan, its limited presence in Creative Industries discourse may be because the

⁹ Using machine learning, each strategy has been associated with multiple keywords.

Sector contributes to circularity through its strengths in ideation, imagination, and design, rather than through material conservation alone.

Overall, Theatre has the strongest engagement across a wide range of circular strategies, possibly reflecting both structural innovation (e.g., sharing of sets and props) and cultural commentary on sustainability. Initiatives such as the Theatre Green Book and the Broadway Green Alliance have clearly had an impact too and are mentioned in the search results.

Top 3 Strategies by Sub-Sector					
Advertising and Marketing: Rethink, Reuse, Recycle					
Architecture: Regenerate, Rethink, Reduce					
Crafts: Regenerate, Recycle, Repurpose					
Createch: Rethink, Reduce, Redesign					
Design (incl. Designer Fashion): Redesign, Recycle, Reduce					
Events and Festivals: Recover, Reuse, Regenerate					
Fashion and Textiles Manufacturing and Waste: Rethink, Recycle, Redesign					
Gaming and Game Publishing: Redesign, Reduce, Recycle					
Generic Creative Industries: Redesign, Rethink, Reduce					
ICT: Redesign, Reduce, Repair					
Music: Reduce, Regenerate, Repair					
Performing Arts and Dance: Regenerate, Reduce, Reuse					
Photography: Recycle, Repair, Reduce					
Publishing: Reduce, Reuse, Recycle					
Radio and Podcasts: Repair, Rethink, Redesign					
Shoes and Footwear: Recycle, Redesign, Repair					
Streaming: Reduce, Redesign, Rethink					
TV and Film: Reduce, Redesign, Repair					
Theatre: Regenerate, Reuse, Recycle					
Visual Arts: Regenerate, Recycle, Rethink					

The weakest overall engagement across the 12 strategies is for the Visual Arts. This may be because artists already practice reuse or repurposing intuitively but do not articulate it in Circular Economy terms (e.g., terms such as "found objects" would not have been detected). Also, fewer large-scale production processes mean less relevance for strategies like Reduce, Refurbish, or Recover.

Other notable findings include:

- Advertising and Marketing shows especially high mentions of Rethink and Reuse, suggesting a strong focus on strategic repositioning and material/product reuse coming from clients.
- Architecture chatter balances focus across Redesign, Regenerate, and Reduce, indicating systemslevel thinking.
- Createch strongly emphasises Rethink and Reduce, aligned with the sub-sector's digital underpinnings and associated virtual approaches and dematerialisation.
- Design has notably high mentions for Redesign and Recycle, consistent with longer term trends in design methods, language and tools.
- ICT reflects a strong alignment with product lifecycle thinking, typical of software, hardware, digital services, and technology innovation spaces. The prominence of Redesign indicates active discourse around reshaping products and systems to be more circular from the outset. Repair and Reduce also align with tech debates on planned obsolescence, right-to-repair, and energy-efficient design. ICT is not only a target for circular transformation it's also an enabler of circular practices in other Sectors via platforms, apps, and blockchain tools that support tracking, sharing, renting, or optimising resources.

- Radio and podcasting scores highly on Repair, and examination of source documents shows this is likely due to the popularity of repair shows (e.g., lvy.fm, a podcast discovery service, is tracking over 6000 podcasts with 'repair' in the title).
- TV and Film have only recently begun to institutionalise sustainability, with organisations like Albert (BAFTA) promoting green production practices. Much of the sustainability discourse still centre on carbon emissions, travel, and energy use (Reduce) rather than more holistic Circular Economy models.

Overall, the data suggests that people in the Sector are more comfortable discussing individual strategies (or clusters of strategies) than the broader concept of the Circular Economy.

4. Results from the survey

This first-of-a-kind global survey explores the state of progress toward a Circular Economy within the Creative Industries, gathering insights from creative professionals and organisations across all subsectors, and from those that supply into the Sector. The survey aims to capture current awareness levels, valued initiatives, and engagement with policies, standards, and circular practices. A more detailed analysis and academic paper will follow later this year: the current findings should be treated as indicative, not definitive.

In the meantime, this report highlights key findings, including how respondents perceive the importance of circularity, what initiatives they consider most impactful, and the extent to which policies and standards are influencing their work.

Who replied

The survey was launched in March 2025, and as of 11th April 2025, the survey attracted 80 respondents from seven countries¹⁰. Given the number of responses and geographies involved so far, the results should only be treated as indicative of the reality of the Circular Economy in the Sector and perhaps, therefore a useful snapshot. Figure 3 shows the breakdown of respondents by sub-sector and position in the Sector's value chains.



Figure 3 Breakdown of responses by sub-sector and position in the supply chain.

¹⁰ An important caveat is that 80% of the respondents were from the UK. The rest were from Western Europe, Scandinavia, the Middle East, and the USA.

Figure 4 shows the size of the organisations represented and the roles of the respondents. 78% of the respondents were freelancers or micro businesses, which is roughly in line with the Sector structure in most countries. 62% produce a physical product.



Figure 4 Breakdown of the size of organisation responding.

The respondents' priorities

Understanding the broader business context for the respondents helps to contextualise the responses to Circular Economy specific questions. Figure 5 shows the breakdown of priorities (based on requiring respondents to provide their top five). The chart shows that many of the top priorities are more general business concerns, rather than being specific to the Circular Economy.

Innovation, growth, and scaling operations are at the top of the list (possibly reflecting the number of MSMEs in the sample), whilst meeting regulatory and compliance requirements is at the bottom. The lack of priority given to regulation varies slightly by sub-sector (e.g., Architecture and Design, including Fashion, rate it higher), and other questions about regulations suggest the Sector is expecting much more environmental legislation related to the circularity soon.

Note that while reducing carbon emissions and energy consumption is at number three in the list, transitioning to a Circular Economy model ranks at number nine (however, improving resource efficiency ranks higher). Answers to other questions in the survey related to business models suggests that, while there is much talk, the level of action on new business models remains low.



Figure 5 Responses to question regarding top 5 priorities currently.

Familiarity with the Circular Economy

Only 36% said they were very knowledgeable or expert concerning the Circular Economy, and less than 50% had received training or external guidance on the topic. This might explain why only 57% were able to select the Circular Economy definition most aligned to a simplified version of that contained in ISO59004.

40% of respondents said that they had done their own research (e.g., searching the web, or learning by doing), as opposed to seeking more formal training. Based on previous research in the Sector, this self-help approach reflects the reality in many subjects for freelancers and micro businesses, i.e. busy people with little free time needing access to on-demand, bite-sized education.

When asked about the full ISO59004 definition, the average score for applicability of the definition to the Creative Industries was 3 out of 5. When asked to justify their scores, a minority of respondents

ISO 59004 Circular Economy Definition

ISO 59004 was published in 2024 and defines the Circular Economy as an "economic system that uses a systemic approach to maintain a circular flow of resources, by recovering, retaining or adding to their value, while contributing to sustainable development."

said the definition was clear to them. However, the majority responded with comments such as "it's difficult to understand", "You need a certain level of expertise in order to understand the terminology", and "the definition is too abstract to be applied meaningfully by any subsector of the Creative Industries."

Recognising that people may not be familiar with the overarching concept of the Circular Economy, the survey also asked questions about the individual 12R strategies. Figure 6 (overleaf) shows the level of familiarity and application of each strategy. All the strategies are in use but only Reuse was scored as "Frequently Applied' or 'Common Practice' in over 50% of the responses. The finding that Redesign as a strategy is "Frequently Applied' or 'Common Practice' in only a quarter of responses is surprising, given how much Redesign is discussed online. This suggests a gap between intent and practical action.



Figure 6 Circular Economy strategies that are "Frequently Applied" or "Common Practice" across the Sector (% responses).



Figure 7 Importance of the Circular Economy (average score out of 5).

Pressure for change

Figure 7 contrasts the importance that individuals placed on the Circular Economy compared to their perception of the importance given to the Circular Economy based on the sub-sector they work in. The averages across the Sector are almost identical and this suggests that the Circular Economy is seen as important across the Sector, even though many are uncertain what it is or how best to pursue it. This example quote from a respondent suggests that there is also a gap between intent and action:

"although many are aware of initiatives and the need to be more sustainable, in practice, few are focussing on or achieving this".

When asked to rate the level of pressure currently, the average score was 2.4 out of 5 with artists (and other creators) identified as the main source of pressure. High-profile examples include the green riders¹¹ used by actors such as Bella Ramsey¹², or the longstanding actions of Coldplay and Billie Eilish. Regulatory pressure is ranked last overall currently, although for sub-sectors such as Architecture and Design (including Fashion) it is ranked in the middle of the choices available in the survey.

Looking forward, pressure is expected to increase in the next few years, with respondents identifying government regulations and public opinion as the two most likely drivers of change (see figure 8). Over 86% said they were "Likely" or "Very Likely" to increase their focus on the Circular Economy in the next five years.



Figure 8 Pressure for the Circular Economy, now and in the future (% responses).

¹¹ A green rider is a section of an artist's contract that outlines environmental or sustainability requirements for a performance or event. Typically, this includes using reusable water bottles, avoiding single-use plastics, providing plantbased catering, or minimising travel emissions. It's a way for artists to promote eco-friendly practices in their professional engagements.

¹² https://www.hollywoodreporter.com/tv/tv-features/bella-ramsey-the-last-of-us-interview-ellie-season-2-1236195178/

An increased focus on the Circular Economy will depend on a combination of internal and external pressures. Detailed analysis of internal pressure was not included in this survey, but previous research from The Centre for Sustainable Design[®] shows that leadership and employee pressure for change are powerful drivers for sustainability more generally¹³.

Organisational maturity

The Centre for Sustainable Design[®] uses a four-stage organisational maturity model in multiple studies. The model has been tailored for the survey and this report (see callout box).

The Centre for Sustainable Design® ZBIA Maturity Model

Zero: No awareness or implementation of circular economy principles; operations remain fully linear with a take-make-dispose approach.

Basic: Some awareness and early-stage efforts, such as recycling initiatives or minimal use of recycled materials, but no systemic changes.

Intermediate: Established circular strategies, including material efficiency, product life extension, and business model innovation, with measurable progress towards circularity goals.

Advanced: Fully integrated circular economy approach across the value chain, with closed-loop systems, regenerative design, and circular business models driving core operations and long-term sustainability.

Figure 9 (overleaf) contrasts how respondents perceive their own organisational maturity in respect of the Circular Economy compared to the sub-sector they work in. In general, the respondents scored their own maturity at the same level as the sub-sector.

¹³ For previous research please visit *https://cfsd.org.uk/research/*.



Figure 9 Respondents perception of their own and their sub-sector's Circular Economy maturity (note that no respondent identified themselves or their organisation as Zero maturity).

44% self-identified as Basic maturity, but no respondent identified themselves as Zero maturity. The results from this latest survey may be an accurate reflection of reality, but further work is needed to verify the outcome as this finding contrasts with previous research on Createch by The Centre for Sustainable Design® where over a third of the responses were Zero maturity. Regardless, nearly half of survey participants identifying themselves as Basic maturity suggests room for significant improvement across the Sector when it comes to the Circular Economy.

44% identify as Basic maturity for the Circular Economy

Increased maturity is often associated with external pressure for change (e.g., from audiences, consumers, customers, regulators, etc). As mentioned previously (see Figure 8), there is an expectation that pressure for change will increase, with regulation as the number one source (and regulatory drivers are powerful forces for change).

Use of policies, standards and voluntary guidance

Only 3% were aware of relevant policies and standards and using them. Over 67% said they were unaware of any relevant standards, with 29% aware of relevant standards but not using them. Figure 10

shows how respondents view the relevance of eight important areas of current and forthcoming Circular Economy regulation.



Figure 10 For eight types of Circular Economy regulation, percentage of those responding who are prepared for the regulations or implementing them.

Overall, the perception of relevance is low, and even where relevance is established, the level of preparedness and readiness is low.

32% unaware of voluntary guidance for the Circular Economy. In addition to policies, regulations and standards, having access to industry voluntary guidance, toolkits, and frameworks for the Circular Economy is important for increasing maturity. Only 26% said that such resources were available and widely used (39% said they were available but not used). The most mentioned resources are BAFTA Albert and the Theatre Green Book, neither of which has the Circular Economy as a central focus at this time. Research into sustainability networks and initiatives in 2024 highlighted that only a third of professional networks for

the Creative Industries have any environmental sustainability resources for members. Where there are formal Initiatives, these typically involve pledges or signing up to a manifesto rather than a demonstration of action¹⁴.

Worryingly, 32% were not aware of any relevant voluntary guidance within their sub-sector.

Barriers to progress

Noting that there may be different understandings of what the Circular Economy is, Figure 11 ranks the perceived barriers to implementation. Three quarters of respondents put cost as the number one barrier:

- Costs of redesigning products, sets, or processes.
- Implementing circular practices, such as material tracking, digital twins, or sustainable manufacturing methods, may involve new hardware or software tools.

¹⁴ For more information and examples, see Creative Industries: Sustainability Networks; Catherine French & Martin Charter, July 2024. *https://cfsd.org.uk/wp-content/uploads/2024/08/Creative-Industries-Sustainability-Networks-July-2024.pdf*.

- Circular alternatives (e.g. recycled, bio-based, or modular materials) can be more expensive or harder to source than conventional options.
- Circular approaches like reuse or take-back schemes often require storage space, transport solutions, or reverse logistics systems that aren't readily available.



Figure 11 Ranking of challenges or barriers to putting Circular Economy principles into practice.

Skills and knowledge ranked number two in the list of barriers and are also a source of additional cost.

Number three on the list is infrastructure (e.g., for take back schemes, recycling etc) which likely require Public Sector financing, at least in part.

Circular Economy messaging

Three quarters of respondents stated that they commission or produce advertising, marketing, promotions, entertainment, news, or current affairs programming. This demonstrates the potential influence of the Creative Industries in shaping public discourse. Encouragingly, just under 50% of those organisations reported that their recent content included Circular Economy (CE) messaging or practical references to the 12Rs (such as Reduce, Reuse, Repair, Refurbish, and Rethink). This is a significant finding, as it highlights the growth in narratives and creative content that is driving behaviour change and public awareness around circular practices, often alongside more general sustainability messages.

Creative outputs, whether in films, advertisements, journalism, or social media, are powerful tools for storytelling and agenda-setting. By embedding Circular Economy concepts in widely distributed content, the Sector can normalise sustainable choices, influence consumer attitudes, and accelerate demand for low-impact products and services. At a time when systemic change is urgently needed to address climate and resource challenges, the Creative Industries have a critical role to play in translating complex environmental ideas into relatable, actionable narratives for diverse audiences. This underscores the importance of not only environmental sustainability behind the scenes, but also the messages and stories being put out into the world.

5. National approaches to the Circular Economy

Institutional support is important for the success of the Circular Economy (e.g., for provision of suitable international, national, regional, and local infrastructure for recycling). Starting from the inventory of documents curated by Chatham House¹⁵, the strategies, roadmaps, and plans (henceforth 'strategies') of 73¹⁶ countries were analysed, as well as three regional approaches (the EU CEAP, the Framework for Circular Economy for the ASEAN Economic Community, and The Africa Circular Economy Facility). The EU Circular Economy Plan (CEAP) is a template from which many appear to be derived.

The assessment of strategies was undertaken specifically to assess engagement of the Creative Industries in development of policies and regulation, and the extent which the Sector's needs are reflected in the documents produced.

The countries and regions examined take similar approaches to Circular Economy (CE) implementation, hence common patterns emerge. For example, service provision and many of the sub-sectors of the Creative Industries are excluded from the strategies, roadmaps, and plans. Also largely excluded are service providers such as those associated with cloud and data centre operation ¹⁷ that are increasingly important to the Creative Industries.

At least in part, however, the strategies examined impact:

- Advertising in terms of the environmental properties of products and services ("green claims").
- Architecture's role in construction waste.
- Product design in the context of eco-design principles, packaging, and labelling.
- Fashion because of the association with textile waste.

In terms of the Creative Industries as a whole, there are exceptions, such as:

- Luxembourg's strategy urging the Creative Industries to "develop know-how and offer design services to make products fit for circular and performance business models".
- Rwanda's strategy that positions the Creative Industries in the context of ICT innovation and modernising their economy.
- Montenegro's strategy that acknowledges that more investment in R&D is needed to incentivise the Creative Industries to engage with the Circular Economy.

However, most countries frame their Circular Economy strategies around waste reduction and resource efficiency in traditional extractive industries and manufacturing (agriculture, automotive, construction and the built environment, electronics and e-waste, food systems, garment and textile manufacturing, and post-consumer waste). The strategies aim to:

• Reduce reliance on virgin materials by promoting recycling and reuse.

¹⁵ https://circulareconomy.earthindustries

¹⁶ Albania, Angola, Argentina, Australia, Austria, Bangladesh, Belarus, Belgium, Brazil, Cambodia, Canada, Chile, China, Colombia, Costa Rica, Czechia, Denmark, Ecuador, England, Estonia, Finland, France, Georgia, Germany, Ghana, Greece, Guinea-Bissau, Hungary, India, Indonesia, Ireland, Italy, Japan, Kenya, Kosovo, Latvia, Lithuania, Luxembourg, Malaysia, Malta, Mauritius, Moldova, Montenegro, Morocco, Netherlands, New Zealand, Nigeria, Northern Ireland, Norway, Panama, Peru, Poland, Portugal, Qatar, Romania, Rwanda, Scotland, Serbia, Slovak Republic, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, UAE, Ukraine, Uruguay, Vietnam, Wales.
¹⁷ In online chatter, resource intensive, digital services are sometimes referred to as modern extractive industries. This refers to the less visible material, energy, and data demands that underpin the digital world (e.g., mining for critical

minerals, e-waste generation, and energy-intensive infrastructures).

- Extend product lifecycles through repair, remanufacturing, and eco-design.
- Decouple economic growth from environmental degradation.
- Align with global climate targets, particularly netzero emissions and reduced carbon footprints. Many of these strategies are designed to primarily align with the United Nations Sustainable Development Goals (SDGs), especially SDG 12 (Responsible Consumption and Production) and SDG 13 (Climate Action).

Key Policy Themes

Different countries emphasise different aspects of circularity, influenced by their economic and industrial structures for goods and pre-existing sustainability initiatives. In turn, this influences the stakeholders and Sectors involved in setting policies.

The call out box summarises the most common policy themes.

Despite ambitious frameworks, several common challenges hinder circularity transitions. At a national level, there are high initial costs for circular investments due to a lack of integrated recycling systems and infrastructure (true everywhere, but especially in the Global South). At a company level, there are weak incentives to support businesses adopting circular practices, and a scarcity of secondary raw material markets hinders scale-up. When it comes to individual consumers, there remains a limited awareness of the importance of the Circular Economy transition and the benefits. Many policies remain voluntary or apply to a narrow subset of products, and legislation is often fragmented.

Creative Industry Inclusion

Economic priorities shape the sectoral emphasis of each country's Circular Economy strategy, yet even where the Creative Industries are a major contributor (e.g., the UK), the Creative Industries are scarcely mentioned. This focus on manufacturing and waste, means that stakeholders in the Creative Industries are not engaged.

For example, the Industrial Strategy for the UK includes the Creative Industries as one of eight priority Sectors for the UK economy. Scotland and Wales (two of the UK's devolved nations) currently have their own approaches

National Circular Economy Strategies: Current Policy Themes

A. Waste management and recycling

- Primary focus in both developed (all regions) and developing nations (e.g., Bangladesh, Ghana, Indonesia, Nigeria).
- Legislation and standardised technical and data solutions for Material Passport, Digital Product Passport, and Extended Producer Responsibility (EPR) schemes e.g., in Europe and the UK.
- A focus on textile waste in high-production countries (e.g., Bangladesh, Cambodia, Vietnam).
- Focus on electronics and e-waste: e.g., South Korea, Japan, Sweden.

B. Sustainable approaches to manufacturing

- Circular industrial parks: e.g., China, Finland, Netherlands.
- Material efficiency in manufacturing.
- Incentives for eco-friendly production and secondary raw materials: e.g., EU (Austria as a prime instance).

C. Product design and eco-conception

- "Circular by design" principles adopted for some time in France, Sweden, and Netherlands amongst others.
- Eco-design regulations (e.g., EU Circular Economy Action Plan).
- Countries like Spain and Italy specifically mandate durability and repairability in product design.

D. Digital and data-centric circularity

- Smart circular cities (e.g., Denmark, Singapore, Estonia).
- Al-driven waste sorting and tracking (e.g., Switzerland, South Korea).
- Blockchain-based traceability in recycling (e.g., Norway, Finland).

E. Circular public procurement

- Adopted, for example, in some EU nations and New Zealand to boost demand for circular products.
- France and Netherlands prioritise sustainable construction materials in public works.
- Mandatory green procurement policies (e.g., in the UK and Ireland).

to the Circular Economy, and neither offer a Creative Industries Sector-wide focus. The Circular Economy Taskforce for England launched in 2024 only includes textiles (alongside transport, construction, agri-food, and chemicals and plastics): this taskforce is important as it is the starting point for the UK government's national Circular Economy Strategy.

The non-product creative industries, including Film, Gaming, Advertising, Streaming, and the Performing Arts, have substantial potential to contribute to the Circular Economy by influencing upstream suppliers (e.g., production equipment, energy use, set materials) and downstream users and audiences (e.g., digital consumption, engagement with circular messaging).

However, based on the analysis of the national Circular Economy strategies, these sub-sectors are largely absent in policy frameworks or referenced indirect as an enabler (e.g., eco-design principles, eco-branding, or to communicate messages to citizens).

The Circular Economy documents examined are centred on tangible products and Sectors (electronics, construction, food, and textiles) because these Sectors produce visible, large-scale waste streams. Also, governments and policymakers often prioritise "hard" infrastructure, physical goods, and waste flows that can be easily measured and targeted for intervention (e.g., designing out single-use plastics, recovering valuable metals from electronics, or reducing building material waste).

In contrast, the Creative Industries tend to provide "intangible" services, experiences, and content; hence, they do not feature as prominently in policy conversations focused on solid waste management. Even when a physical outcome from creative processes, policies often neglect those parts of the value chain. For example, while many Circular Economy strategies focus on reducing existing fashion waste streams, fewer address fashion design (and 80% of a product's environmental impact is determined at the design and development stage). This is important as the front-end of the fashion lifecycle, where material choices, production methods, and business models can embed circular principles from the start.

A further complication for policymaking is the crucial role of freelancers and micro businesses in the Creative Industries. Unlike, say the automotive Sector, there are relatively few large businesses for policymakers to engage with, and this fragmentation means that there may not be a critical mass of representation to shape policies.

Supply-side policy gaps

Upstream impacts for non-product sub-sectors (e.g., suppliers of products and services to advertising, film, gaming etc.) are not sufficiently considered in national strategies. Here are a few illustrations of gaps:

- Film and TV production
 - National strategies omit policies for resource-efficient film production. For example, there is no focus on the supply chain for set design and material reuse (as there often are for more permanent built environments). Only a few national strategies (e.g., Scotland) even acknowledge opportunities for circular production in media organisations of any sort. There are, however, industry schemes such as BAFTA's albert that encourage such practices in production companies and their suppliers.
 - Policies that incentivise circular procurement for film and TV equipment are missing. No country addresses the fast-moving lifecycle of cameras, media servers, screens, lighting, etc., beyond generic references to secondary markets.

- Advertising and Marketing
 - Agencies are upstream of their clients, such as an electronics manufacturer or clothing brands. The clients may well be subject to legislation such as Extended Producer Responsibility for their products, but there is a lack of policies promoting circular design in supporting advertising materials. Sustainable packaging and branding strategies are rarely mentioned (although eco-labelling and related policies and regulations go some way to addressing the gap).
 - There is no discussion on the waste impact of physical (e.g., out-of-home billboards) and digital advertising. For example, national strategies do not include guidance on reducing digital carbon footprints from programmatic advertising, and cloud computing energy use for media content in advertising and marketing activities is overlooked.

Gaps in demand-side circularity

Circularity policies to mitigate the negative side of demand for creative products, services, experiences, and media content are also missing (although reducing resource consumption is a general principle that all employ). The most obvious example is Fashion; while reducing garment manufacturing and post-consumer textile waste is frequently mentioned, the source of the issue (fast-fashion and overconsumption) is usually sidestepped. There are exceptions, however, such as Nigeria, where sustainable consumption is given the same priority as sustainable consumption.

The EU Circular Economy Plans promote "dematerialisation" (the idea of replacing physical products (like clothing) with digital alternatives) to reduce resource use, waste, and emissions. In theory, digital fashion reduces the need for raw materials, manufacturing, and transport. For example, a virtual outfit used in gaming or social media avoids the environmental costs of making a real garment. However, the practical implication is that this shift overlooks the environmental footprint it creates. Digital fashion relies on energy-intensive data centres, complex software rendering, and cloud-based services. If powered by non-renewable energy, these systems can generate significant carbon emissions. So, while dematerialisation reduces physical impacts, it introduces new environmental challenges that need to be accounted for such as energy use, e-waste, and water consumption. This means that national strategies must address both the material and digital dimensions of products.

Similarly, the demand for increasingly realistic games drives the need for more powerful hardware, leading to shorter lifecycles for consumer consoles and accessories—and ultimately, more electronic waste. Similarly, growth in audience and consumer demand for media content further increases the energy demands on streaming platforms and data centres. The national strategies have little to say about this, and there are no incentives for sustainable media consumption, i.e., countries do not encourage users to engage with lower-impact digital content.

Few policies for the 'World Behind the Screen'

The Centre for Sustainable Design[®] publication, "Createch in the UK: Sustainability Policy Linkages & Company Activity" in 2022¹⁸ introduced the idea of the 'World Behind the Screen'. This refers to the often invisible environmental, and social impacts of AI, digital technologies and creative content across value chains in the Creative Industries. It is a way of highlighting that even seemingly immaterial digital products (like games, digital fashion, or streamed media) rely on physical infrastructure and resources such as servers, communication devices, display hardware, and raw materials.

¹⁸ https://cfsd.org.uk/wp-content/uploads/2022/07/CT_Published_July-2022.pdf.

These services and systems, often managed by suppliers to the Sector, generate real-world impacts, from high energy use and water consumption in data centres to growing volumes of e-waste. Despite these impacts, the "World Behind the Screen" is largely absent from national Circular Economy strategies. Sub-sectors with a growing dependence on information technologies (such as Film, with the transition to virtual production, use of game engines and real-time rendering) are rarely considered in the context of their direct and indirect impact on resources.

Addressing this situation in national strategies is important because the specialist hardware to deliver the latest gaming experience or power large AI models has an increasingly short lifecycle and potentially greater leading to greater resource use and more e-waste. While some strategies mention sustainability and computer hardware in broad terms, the resource impact of data centres in particular remain largely unaddressed in Circular Economy policy frameworks¹⁹.

Communicating with citizens

Multiple strategies highlight the powerful role the Creative Industries have in shaping public behaviour through circular narratives, e.g., Slovenia's strategy views the Creative Industries as vital to creating the right cultural conditions for a Circular Economy transition to succeed.

However, while these strategies recognise the role of media in promoting circularity, outside of public engagement it is left to individual organisations and industry initiatives (such as Purpose Disruptors) to integrate circularity themes into mass media campaigns and entertainment. In practice, this means that there is no policy to boost strategic use of films, TV series, or games to educate audiences on circular principles.

¹⁹ Real estate advisors Knight Frank expect data centre capacity worldwide to grow by 46% over the next two years. Most of this growth is to support AI usage.

6. Discussion of the findings

The Creative Industries offer a huge potential to lead the transition toward a Circular Economy, given their capacity for innovation, cultural influence, and storytelling. Yet, despite growing recognition of the concept, the Sector remains in the early stages of adopting Circular Economy principles. A closer examination reveals significant gaps in understanding, practice, and institutional support, raising hard truths that must be addressed to accelerate progress.

The Circular Economy is just getting started

Across the Creative Industries, businesses may perceive the Circular Economy as an abstract or niche concept, poorly understood by practitioners and decision-makers. Too frequently, it is reduced to simplistic notions of recycling or waste management, sidelining its broader principles of designing out waste, keeping materials in use, and regenerating natural systems. In sub-sectors like Film and Live Events, circular actions are largely confined to peripheral measures such as reducing on-set waste (e.g., disposable cups and food packaging). While these isolated efforts are valuable, they cannot address deeper systemic changes necessary for circularity.

Also, the adoption of Circular Economy principles varies widely across sub-sectors. Fashion and textile businesses have made the most visible progress, with initiatives focusing on sustainable materials, recycling, and resale platforms. However, these efforts often fail to address the root causes of overconsumption and fast fashion's inherent wastefulness. Meanwhile, non-product-based sub-sectors like film and digital media face unique challenges. Their focus on energy reduction and digital efficiency is often conflated with circularity, reflecting a lack of clarity about how these efforts fit into a broader framework for environmental sustainability.

Early days for policy and institutional support

Institutional support for the Circular Economy within the Creative Industries is currently fragmented and limited. Although national Circular Economy strategies are beginning to take shape around the world, many are still in the early stages or only address the Creative Industries in a piecemeal way.

For example, in England, the Circular Economy Taskforce launched in 2024 is intended to lay the groundwork for the UK's national strategy, expected in late 2025. However, from the perspective of the Creative Industries, the Taskforce's current focus is narrow (centred solely on textiles) leaving the broader sector without a clear, coordinated roadmap for circular transition.

In contrast, the European Commission has recently announced amendments to their Waste Framework Directive to make Extended Producer Responsibility (EPR) for textiles mandatory across all Member States and require producers to contribute to the effective separate collection of textiles they make and sell.

Circular Economy adoption at the organisational level in the Creative Industries is often driven by individual champions or artists, rather than embedded in broader strategic frameworks such as those found in automotive or electronic Sectors. To achieve a systemic impact, the Creative Industries require more robust policies, tailored funding mechanisms, and international collaboration to support large-scale transformation. In turn, this requires the Sector to engage more actively with policymakers; always a challenge in a Sector where the majority are freelancers or Micro, Small, and Medium-Sized Enterprises (MSMEs). However, grassroots adoption of circular practices by smaller players can inform broader policy through success stories and data that spurs governments create more robust, inclusive policy frameworks.

Freelancers and MSMEs have a crucial role

In most countries, the majority of Creative Industries' practitioners are freelancers or employed in MSMEs. Collectively, their decisions have a substantial environmental impact. Even if each individual or team has a modest carbon or material footprint, the cumulative effect is significant given how many people work this way.

MSMEs often have strong ties to local creative communities (e.g., theatre collectives, indie film crews, boutique design studios). They can champion sustainability at a grassroots level, influencing community norms and demonstrating viable circular practices to others.

Small teams and freelancers adapt quickly to new trends, technologies, and workflows. This agility means they can experiment with circular practices, such as reusable set pieces, modular hardware, or digital collaboration, without the slower decision-making processes found in larger corporations. Also, freelancers and small studios may be the first to adopt innovative solutions for eco-friendly production methods long before larger entities catch on.

The artists, creators, and makers that are at the heart of the Creative Industries are frequently freelancers too. They can embed circular themes into their creative outputs. Even subtle messaging in scripts, storyboards, or game mechanics can educate audiences on the Circular Economy. Similarly, freelance technicians and craftspeople are the backbone of sub-sectors like Film, TV, and Theatre and can play an active role in advancing Circular Economy principles. Whether they are set builders, lighting technicians, costume makers, or special-effects experts, these professionals directly influence the materials and methods used in productions, and facilitate maintenance, repair, and upcycling of equipment and sets. This makes them powerful agents of sustainable change, providing they have the skills.

Circularity brings more urgency to the green skills agenda

As the Circular Economy becomes more central in Creative Industries, new skills are needed to adapt to changing materials, regulations, standards, processes, and creative workflows:

- A basic understanding of Life Cycle Assessment (LCA) can help identify resource-intensive or highcarbon aspects of products and processes. With this insight, better design and purchasing decisions can be made, reducing waste and improving efficiency.
- Understanding the properties of eco-friendly materials is essential for selecting the right options for sets, props, and costumes. Creators and technicians need a grasp of material science basics, including the durability, weight, and longevity of green materials. Equally important is knowledge of safe disposal practices, such as how to handle, separate, compost, or recycle materials responsibly.
- Familiarity with eco-certifications and standards also plays a crucial role. Recognising labels such as FSC (for wood) or OEKO-TEX (for fabrics) ensures that more sustainable choices are made. Additionally, as regulations evolve (such as those under the EU Circular Economy Action Plan or ISO 59000 standards) everyone needs to stay informed about compliance requirements to meet industry expectations as regulations and standards develop.
- A shift toward modular and reusable design principles requires new approaches to construction and production. Skills in engineering for disassembly allow for sets and rigs to be taken apart without damaging materials, making them easier to store and repurpose. A broader understanding of production lifecycles, from material sourcing to post-use disposal, ensures more resourceconscious decision-making.

- Proficiency in inventory and asset management tools enables better tracking of digital assets, props, costumes, and equipment, facilitating more efficient sharing and reuse. The ability to work with collaborative digital platforms and cloud-based databases helps teams coordinate remotely, reducing unnecessary travel and duplication of resources.
- ICT plays an increasing role in sustainable practices and as digitalisation advances (especially in energy intensive areas such as AI), energy monitoring skills are becoming essential. Not just in terms of data centres: the integration of Industry 4.0 technologies in lighting, sound, and special effects requires production crews to understand how to instal, programme, and interpret data from smart energy systems. Mastery of these tools supports more efficient energy use, reducing both costs and environmental impact.

The case for change needs to be stronger

For many in the Creative Industries, there needs to be a clearer demonstration of the business case for the Circular Economy. Business leaders require proof that circular practices can align with profitability, particularly in sub-sectors heavily reliant on fast production and consumption cycles, such as fashion. e.g., cost savings through material efficiency, superior revenue from resale or leasing models, and enhanced brand loyalty through sustainability. However, the Circular Economy also demands significant social and cultural change. Consumers need persuading of the value of reuse, repair, and shared ownership over newness and excess. For a Sector that thrives on aspirational narratives and emotional connection, adopting circular economy principles means more than just telling people to change materials or processes, it calls for a deeper shift in thinking and behaviour. The Sector can challenge traditional ideas of value based on novelty, speed, and growth, and instead ask what it means to create a lasting, regenerative impact and contribute to long-term social and environmental wellbeing.

Need for greater focus on AI and data centres

The increasing reliance on AI in Creative Industries introduces both opportunities and challenges for the Circular Economy. AI-powered tools are revolutionising content creation, production, and personalisation, driving efficiency and reducing waste. For instance, virtual production in film eliminates the need for physical sets, while AI in fashion predicts trends, (potentially) reducing overproduction. However, these benefits come with a significant material and energy footprint, particularly due to the energy demands of data centres that power streaming services, AI models, and cloud storage. Data centres account for approximately 1% of global electricity consumption and produce substantial carbon emissions. Addressing these impacts requires company and national investments in renewable energy, energy-efficient hardware, and sustainable cooling technologies.

Standards will be more important in the future

In the Creative Industries, formal standards, such as those developed by ISO, have historically played a limited role, often perceived as too rigid or misaligned with the Sector's emphasis on originality, experimentation, and fluidity. As the survey findings show, standards are not top of mind for many in the Sector. However, as the Circular Economy gains traction as a policy priority, the adoption of clear, measurable frameworks will become increasingly necessary to ensure environmental claims are credible and practices are aligned with broader sustainability goals. This shift is likely to create discomfort within the Sector, where creative freedom and bespoke approaches often take precedence over standardised procedures. Reconciling these differences will require careful translation of Circular Economy principles into Sector-appropriate standards that support innovation while ensuring accountability.

7. Recommendations

The Creative Industries are uniquely positioned at the intersection of cultural influence and economic innovation, making them important in advancing Circular Economy principles. However, as highlighted in this report, there is a significant gap in integrating circular practices within the Sector. Challenges such as limited awareness, inadequate infrastructure, and a lack of tailored policies hinder the Sector's transition. Addressing these issues is not only essential for environmental stewardship but also for enhancing the Sector's resilience and long-term viability.

There is much that any individual organisations can achieve by themselves:

- Build internal capability and foster a sustainability mindset:
 - Make someone accountable for policies for the Circular Economy.
 - Use simple tools like circularity checklists (see example checklist for the first 100 days of circularity), short workshops, or creative brief templates with circularity prompts to raise awareness. Tap into external networks, training providers, and peer communities to share knowledge and develop skills over time.
 - Collaborate with industry associations and educational institutions to develop programmes that promote sustainability.
 - A culture of circular thinking starts with informed and engaged teams.
- Design for reuse, adaptability, and longer life:
 - Focus on creating content, products, services, and experiences that can be repurposed, repaired, or reconfigured, such as costumes with modular elements, digital assets usable across projects, or stage sets built for disassembly and reuse.
 - Collaborate early with production teams, designers, and suppliers to embed circular thinking into project planning. Making reuse and modularity part of the brief from the start ensures better outcomes and avoids costly redesigns or retrofits later in the process.
 - These approaches reduce material waste, extend value, and reduce costs.
- Experiment with material and production changes:
 - Trial eco-friendly or circular alternatives such as switching to recycled or bio-materials, reusing packaging, or cutting energy use in post-production.
 - Even one lower-impact decision per project can build momentum and demonstrate early wins to clients and collaborators.
 - This approach not only reduces environmental impact but also appeals to environmentally conscious consumers. and audiences.

However, advancing circularity depends on coordinated action across many stakeholders to achieve environmental and business objectives, as well as unlocking new avenues for innovation and growth in in the Sector. The following recommendations provide a roadmap for collaborative innovation between stakeholders, including businesses, academia, and policymakers, to foster a more circular Creative Industries Sector:

1. Prioritise closing knowledge gaps

Based on the online research and the survey, there are major gaps in understanding the Circular Economy's meaning, value, and application across the Creative Industries. Companies, education providers, and governments all have a role in closing these gaps.

For companies needing basic awareness or practical knowledge, employee training courses are available from the likes of the Circular Economy Institute and the Ellen MacArthur Foundation. Professional and trade associations can help making their members aware of them, or by creating their own.

For individuals, there are also online courses available from EdTech platforms such as EdX or established institutions that cover the needs of beginners through to more advanced study²⁰. For those in Film and TV, the BFI together with Julie's Bicycle offer a Sustainable Resource Hub with a range of tailored materials and waste resources.

For educators and policy makers, gaps such as the lack of conceptual clarity, perceived low relevance of standards, the complex cultural and social barriers to transitioning to the Circular Economy across the Sector, and the growing impact of digital technologies require funded research. Ideally, this should be as partnerships between policy makers, academic institutions, and creative businesses to co-develop insights. This groundwork is essential to ensure companies can plan and invest wisely, and so governments can set effective policies and regulations that span digital, experiential, or conceptual creations that lack a physical form (e.g., gaming, streamed media, performances) as well as physical products.

Simple practical steps could include:

- Joint funding for research hubs on circular innovation in creative production (e.g., set reuse, sustainable materials, digital emissions).
- Co-developing circularity toolkits or templates tailored for creative outputs for use in further education and in business.

2. Map and respond to Sector-specific needs and priorities

For governments to effectively incentivise and regulate the Circular Economy within the Creative Industries, it's imperative to recognise and address the unique characteristics and needs of each subsector. A one-size-fits-all approach is insufficient due to the diverse nature of activities in Gaming and Architecture to Theatre and Createch, and this requires businesses and freelancers in the Sector to engage with initiatives to better understand the needs of the various sub-Sectors and the various players in their value chains.

- Conduct targeted sub-sector deep dives (e.g., fashion vs gaming) to understand differing barriers and opportunities.
- Gather insights within each sub-sector from key stakeholders in the Circular Economy, e.g. influential sustainability professionals, the most active sustainability networks and initiatives, and professional and trade associations such as OISTAT International Organisation of Scenographers, Theatre Architects and Technicians.

²⁰ See this example for a free introductory course from TUDelft: *https://www.edx.org/learn/circular-economy/delft-university-of-technology-circular-economy-an-introduction*. Or for a MBA focused on the Circular Economy, seehttps://www.bradford.ac.uk/courses/pg/innovation-enterprise-and-circular-economy/.

- Examine how resources are sourced, used, and disposed of in each sub-sector, and hence the potential for the Circular Economy.
- Understand the role of digital tools and platforms in the Circular Economy, especially in subsectors like gaming and Createch.

3. Make the business case more concrete

Many creative organisations, especially MSMEs, while supporting the Circular Economy as an idea, lack evidence that circularity improves financial viability and returns on investment, e.g. cost savings, new revenues from circular business models like reuse, leasing, modular production, and digital dematerialisation.

Addressing this gap is more than a spreadsheet exercise. It requires governments, universities, trade and professional associations, and individual companies to spur action by developing and publishing practical case studies, pilots, and economic modelling for the Circular Economy, such as:

- Showcase case studies like Mud Jeans (rental model) or National Theatre Green Store (shared set reuse).
- Better understanding the value-drivers for fashion brands implementing take-back schemes or using recycled materials.
- The financial benefits of using sustainable materials and design for disassembly and remanufacture.
- Benchmark cost savings and new revenue potential from reuse, repair, or modular product/service designs.
- Savings from shifting to digital products or services, reducing material and distribution costs.

By embedding case studies into broader learning systems in educational and workplace settings, the Creative Industries can more effectively transition to sustainable, circular models.

4. Design and deploy Sector-friendly standards

The evidence in this report suggests that current Circular Economy standards often feel irrelevant or too abstract to many practitioners in the Creative Industries and other Sectors. This disconnect is partly due to the unique characteristics of the Sector, which are not well reflected in existing frameworks, but also from a lack of engagement with standards-making and use.

One way to address this gap is for professional and trade associations in the Creative Industries to collaborate with national, regional, and international standard-setting bodies to interpret, contextualise, and promote current or forthcoming standards (such as the ISO 59000 series or CEN circular design standards in Europe, both published in 2024) for their members.

While the ISO 59000 series provide a useful foundational framework for Circular Economy principles, there is limited evidence of meaningful engagement from the Creative Industries in its development or deployment.

Developing new Sector specific standards is likely best initiated at national level, and input from Sector-specific associations and creative professionals is crucial. Engaging these stakeholders ensures standards are not only theoretically sound but also practically applicable and reflect the realities of creative work. Greater involvement from the Sector could also help ensure that future standards better reflect characteristics such as:

• The range of creative outputs from digital media and performances to product designs, and their different lifecycles and patterns of material usage.

- The project-by-project nature of the Sector, necessitating flexible standards that can adapt to varying scopes, working patterns, and durations.
- Collaborations across artists, designers, producers, and technologists requiring language and guidance that is accessible to all.

5. Invest in targeted Circular Economy skills

A lack of knowledge and skills (especially among freelancers and MSMEs) is a major barrier to action. For those in the workplace already there is a need for public and private education providers to deliver short-form, modular learning on circularity principles, eco-design, sustainable technology use, material reuse, and lifecycle thinking as examples.

The Circular Economy could also be incorporated within existing national and local education policy frameworks (only France appears to be doing this at scale, currently).

While higher education academic programmes are evolving to include sustainability as a core component, the circularity content is often high level. To date, there has also been a greater focus on the social elements of sustainability compared to Science, Technology, Engineering and Mathematics (STEM) topics such as climate science and material science, and business topics such as circular business models and carbon accounting. Creative arts education institutions could address these points and enhance the circularity content of their courses by:

- Taking steps to embed Circular Economy learning outcomes in all forms of creative education (e.g., design degrees, film schools, games development courses).
- Engaging with industry stakeholders to include real-world circular practices beyond recycling and waste management. For example, digitalisation of prop and equipment libraries, preventative maintenance strategies, material innovation.
- Using industry-academic collaborations and cross-disciplinary approaches within and between institutions to source STEM skills and knowledge that is currently missing from creative arts faculties.

Where there are funding gaps for postgraduate research and innovation in areas such as biomaterials, creative arts faculties could pursue alternative sources of funding e.g., in the UK that might mean approaching the Engineering and Physical Sciences Research Council rather than the Arts and Humanities Research Council, or private STEM funders such as biotech investors.

There is also an important role for professional and trade associations in creating continuing professional development modules for producers, designers, craft and technical leads on key circularity topics such as reuse logistics, lifecycle analysis, procurement for circularity, extended producer responsibility regulations, standards, material passports etc.

6. Build infrastructure for circular practice in production

While individual companies within the Creative Industries can initiate Circular Economy practices independently, achieving significant and systemic impact requires public sector involvement.

Companies can take several steps to embed circularity into their operations:

- Establish company-internal reuse systems such as in-house protocols for reusing materials, such as costumes, sets, or digital assets, to minimise waste.
- Fund refurbishment or repair networks for creative tools and hardware (e.g., lighting, cameras, digital rigs).
- Source eco-friendly materials and incorporate them into design and production processes.

• Utilise digital tools to track resource usage, manage inventories, and optimise supply chains for sustainability.

These actions can lead to cost savings, enhanced reputation, and a reduced environmental footprint.

Despite these efforts, the scale and complexity of infrastructure required for a fully functional Circular Economy often exceed the capacity of individual companies, especially MSMEs. Public sector involvement is crucial in the following areas:

- Governments can facilitate the creation of communal resources such as green material libraries and prop/set banks, enabling multiple organisations to access and share materials efficiently.
- Establishing local repair centres and recycling facilities can extend the life of creative assets and reduce waste.
- Public funding can aid in developing systems that manage the return and redistribution of used materials, ensuring they are reintroduced into the production cycle.
- Providing financial incentives

Public-private initiatives at a national or local level can lead to the establishment of robust infrastructure that supports circularity systemically. For instance, local initiatives like *Glasgow's Circular Economy Route Map*, demonstrate how city councils, in partnership with local businesses and organisations, can drive the systemic changes needed for business.

7. Make more use of creative output to shift culture and behaviour

The Sector has a unique power to shape public narratives around circular lifestyles. While there are multiple examples of broad-based sustainability messaging the Circular Economy features less. There are examples, however, to draw upon:

- The United Nations Environment Programme (UNEP) and the UN Fashion Charter for Climate Change are already urging fashion communicators to shift narratives from promoting overconsumption to advocating for sustainable and circular systems.
- Documentaries such as the 2018 film "Closing the Loop" (directed by filmmaker Graham Sheldon and presented by Dr Wayne Visser) explores five key strategies for achieving circularity (reduce, reuse, recycle, renew, and reinvent) by showcasing examples from Europe, Latin America, and Africa.
- As part of Austria's Circular Economy Strategy there is a government-led campaign aimed at improving the competency of companies when it comes to the Circular Economy. This campaign doesn't just give information about the Circular Economy it "motivates them to act, in cooperation with the federal states and social partners".

What is less apparent is circularity being included in mainstream advertising or narrative entertainment (a rare example is "*Dream Factory*", a musical comedy about the perils of overconsumption). Businesses can choose to take the lead (individually or pursue grants and tax incentives to integrate circular themes into campaigns, content, and storytelling from games to drama to digital advertisements.

At a national level there is scope to commission public campaigns that model circular living using entertainment formats, advertising etc. Policymakers can do more to create incentives that encourage circularity narratives in film, games, music, and advertising (e.g., storylines featuring the 12R strategies in daily life).

8. Include the Sector in policy and regulation design from the start

Most national Circular Economy strategies ignore or under-represent the Creative Industries. Just as countries are starting to recognise that their Creative Industries are engines of growth, the environmental impact also needs to be addressed. But first, there is the need to engage with creative stakeholders in drafting national plans and regulations to ensure policies reflect the Sector's contribution, needs, and potential.

Policy areas to prioritise include:

- Expanding the scope of current Circular Economy strategies to include all parts of the Creative industries. This could include broadening the focus on Fashion beyond textile waste streams, setting targets for reducing material consumption and increasing the circularity rate across the Sector²¹, and developing policies for the direct and indirect e-waste from use of AI and other advanced technologies.
- Incentive-driven approaches that introduce financial mechanisms for the Sector (e.g., tax breaks for circular businesses, subsidies for sustainable materials).
- Investing in research to assess how media influences public attitudes and behaviour towards the Circular Economy can inform future policies. Understanding the effectiveness of different media strategies allows for the refinement of approaches to maximise impact.

9. Address the expanding environmental impact of digital workflows

To achieve sustainable growth, it's essential to recognise that Net Zero and the Circular Economy are complementary and interdependent strategies. While Net Zero targets the reduction of greenhouse gas emissions, the Circular Economy focuses on keeping materials in use for longer through practices like repair, reuse, and recycling which in turn reduces emissions associated with extraction, manufacturing, and waste. For example, repairing a device instead of replacing it extends its lifespan, reducing both material demand and the emissions from producing and shipping a new one. As AI and cloud computing expand rapidly in the Sector, driving up energy and resource consumption, a combined approach is needed, one that cuts emissions while also managing material flows sustainably.

Key recommendations are:

- All businesses should evaluate the necessity of each of their digital services and platforms, avoiding those that promote excessive consumption or have high environmental costs such as e-waste.
- Academia could develop and disseminate best practices for energy-efficient computing and data storage associated with the specific digital workflows in areas such as Product Design and virtual production in Film, TV, Advertising etc. This could involve support tools to measure and reduce carbon impacts of streaming, rendering, and AI model training.
- Policymakers could create incentives to discourage the development and use of non-essential digital applications contributing to resource depletion.
- In sub-sectors such as Film and TV, there is an opportunity to expand or establish programmes for refurbishing and reselling used digital equipment. Policymakers could support remanufacturing initiatives through grants and public awareness campaigns. Academia could

²¹ The circularity rate is a key indicator that measures how much material use comes from recycled or reused resources rather than new (virgin) raw materials.

research innovative methods for refurbishing digital devices used in production volumes to meet current technological standards.

8. Conclusions

The Creative Industries are at the start of their journey toward a Circular Economy. This report highlights barriers that need to be overcome at an organisational, Sector and national economy level, and the enablers of progress (see Figure 12). While promising initiatives and progress in sub-sectors like Fashion and Theatre show potential, the Sector as a whole remains in the early stages of adoption. To move forward, stakeholders must address gaps in understanding, systemic implementation, and institutional support. Business leaders need to see tangible benefits, consumers must embrace cultural change, and systemic approaches must underpin all efforts.

🚫 Top Barriers		🌱 Key Enablers	
Barrier	Description	Enabler	Description
Cost of Transition	High costs for redesign, sustainable materials, and logistics etc.	Targeted Skills Development	Short, modular courses on circular design, eco- production, sustainable IT.
Skills and Knowledge Gaps	Low Circular Economy literacy; lack of practical training.	Policy Inclusion	Embed Creative Industries in national Circular Economy strategies and regulations.
Lack of Infrastructure	Limited material reuse centres, recycling facilities, or repair hubs.	Knowledge Sharing and Research Partnerships	Funded collaboration between academia and industry to close critical gaps.
Policy and Standards Gaps	Creative Industries largely absent from national strategies.	Showcasing Business Value	Case studies demonstrating financial benefits of circular models.
Fragmentation of the Sector	Freelancers and MSMEs dominate; hard to coordinate change.	Creative Influence on Culture	Use media, advertising, film, and gaming to shift consumer norms.
Digital Footprint Overlooked	High resource use (AI, streaming, data centres) rarely addressed.	Green Infrastructure Support	Investment in shared material libraries, asset tracking, and circular hubs.
Cultural Barriers	Preference for novelty, speed, and growth over systemic change.	Sector-Specific Standards	Develop practical, flexible standards fit for digital and project-based industries.

Figure 12 Barriers and enablers.

The breadth and diversity of the Creative Industries, ranging from materially intensive activities like set construction to intangible outputs such as digital media, requires a nuanced approach. Yet, current national and regional policy frameworks continue to overlook the sector's complexity and potential contribution. Much of the innovation is grassroots-driven, led by freelancers and microenterprises that lack the institutional support, funding, and tools required to scale their efforts.

At the same time, there is a growing awareness that the Creative Industries are more than consumers of materials: they are powerful cultural agents capable of shifting public perceptions and behaviour through storytelling and design. This influence remains under-leveraged in national strategies.

Crucially, our findings show that policy development must not run ahead of understanding. Many knowledge gaps exist: conceptual definitions, viability of business models, digital infrastructure impacts, socio-cultural dimensions, etc. These must be addressed before detailed regulations can be effectively introduced. This makes academic-business collaboration a top priority. These partnerships will be essential in shaping meaningful, evidence-based strategies and tools that are fit for purpose.

A just and effective circular transition for the Creative Industries will require tailored support mechanisms, sector-appropriate standards, investment in infrastructure, and upskilling at scale. But it will also require reframing value, shifting cultural narratives, and building a case for circularity that aligns environmental responsibility with creative ambition and economic viability.

With the right support and strategic focus, the Creative Industries can become champions of circularity, not only greening their operations but also helping to inspire wider system change through the stories, products, and experiences they create. The journey is just starting, but the rewards are profound: an industry that not only entertains and inspires but also leads the way toward a more sustainable future.

APPENDIX A

100-Day Circular Economy Starter Checklist

1. Build Awareness and Understanding (Days 1–20)

□ Identify someone to take ownership of Circular Economy policies (e.g. make it someone's role to integrate circularity into the businesses' sustainability policy).

□ Schedule a short team session to introduce the basics of the Circular Economy and R strategies.

 \Box Read or watch 2–3 introductory resources relevant to your sub-sector (e.g. film, design, digital).

 \Box Map your main material/resource flows (what do you buy, use, waste, discard?).

□ Join a relevant creative sustainability network or mailing list that has a focus on circularity (e.g. Julie's Bicycle, The Centre for Sustainable Design®, AdGreen).

2. Start Measuring and Auditing (Days 21–40)

□ Choose one product/project/production to assess for resource impact (including energy-efficient practice).

□ Identify your 2–3 most common waste types (e.g. offcuts, packaging, digital storage).

□ Begin basic tracking of resource use and sources of waste (spreadsheets are fine).

 \Box Ask suppliers about take-back, reuse, or recycled-content options.

 \Box Set at least one realistic short-term goal based on your priority R strategies (e.g. reduce single-use packaging by 20%).

3. Take Action on Resource and Material Use (Days 41–60)

□ Create a "circularity checklist" based on priority R strategies for future production briefs or product plans.

□ Trial a reuse or repair scheme (e.g. prop reuse, repair of equipment, refilled ink).

□ Switch to a circular or lower-impact material in one project (e.g., incorporate recycled or upcycled materials into a product, performance or production).

□ Start digital decluttering to reduce storage energy (delete/archive old files).

 \Box Reuse packaging or containers where safe and practical.

4. Collaborate and Learn (Days 61-80)

□ Speak to another business or peer about their circularity journey and quick wins.

□ Explore local or sector-specific reuse or surplus-sharing platforms.

Attend one webinar or in-person event on circular design or circular strategies for production.

 \Box Ask your team what circular ideas they have (i.e. host a 30-minute idea session.

□ Reach out to a local college, university, or network about joint circular initiatives or student projects.

5. Communicate and Commit (Days 81–100)

□ Draft a short internal circularity statement with your goals and first actions.

 \Box Share a small "circular win" on social media or in a client conversation.

□ Identify at least one longer-term priority to work toward (e.g. zero waste sets, modular design, digital sustainability).

 \Box Add a circularity question or prompt to creative briefs or supplier conversations.

 \Box Schedule a 6-month review: what worked, what didn't, and where next?

APPENDIX B

Selected Reading

Introductory texts

Charter, M. (Ed.). (2018). Designing for the Circular Economy (1st ed.). Routledge. *https://doi.org/10.4324/9781315113067*

Circular Economy Introduction – The Ellen MacArthur Foundation https://www.ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview

Stahel, W.R. (2019). The Circular Economy: A User's Guide (1st ed.). Routledge. *https://doi.org/10.4324/9780429259203*

Standards and Working Groups

ISO 59004:2024 Circular economy — Vocabulary, principles and guidance for implementation *https://www.iso.org/standard/80648.html*

Executive Briefing: BS 8001 – a Guide https://www.bsigroup.com/globalassets/localfiles/enza/sustainability/bs8001_executive_briefing.pdf

CEN/CLC/JTC 10/WG 8 Method to Achieve Circular Designs of Products https://standards.cencenelec.eu/dyn/www/f?p=205:7:0::::FSP_ORG_ID:3044985&cs=1FE562800 7CA2503E581BEF10884EC328

Regulation

The EU Circular Economy Action Plan https://environment.ec.europa.eu/strategy/circular-economyaction-plan_en

For more examples, please visit https://circulareconomy.earth

For Architecture

Circular Economy Design Guide: Circular Economy in the Built Environment – Architects!Climate Action Network *https://architectscan.org/resource/circular-economy-design-guide/*

For Advertising and Marketing

Marketing Playbook for a Circular Economy - The Ellen MacArthur Foundation/Kantar *https://www.ellenmacarthurfoundation.org/marketing/overview*

For Fashion

Product Circularity for Fashion toolkit http://www.pc4fashiontest.org

The Fashion ReModel - The Ellen MacArthur Foundation https://www.ellenmacarthurfoundation.org/the-fashion-remodel/overview

For Film and TV

The Green Production Guide Toolkit (Producers Guild of America) *https://greenproductionguide.com/tools/*

BAFTA albert https://wearealbert.org

For Theatre

Theatre Green Book https://theatregreenbook.com

The Centre for Sustainable Design®, Research & Innovation, 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). The Centre has led and participated in a range of highquality 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, having worked closely with business, policy making and research communities for two decades, 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 20+ European Commission funded *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 CfSD integrates *Circular Economy* into its broader sustainable innovation and product sustainability activities:

- 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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www.cfsd.org.uk

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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