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Circular Fashion Innovation Partnership Pathway Report

Challenges and Opportunities for UK–Nigeria Collaboration

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Executive Summary: Advancing Circular Fashion in Nigeria

Nigeria's fashion industry, a vibrant tapestry of cultural expression and economic potential, faces mounting pressures from unsustainable practices that threaten its growth and environmental integrity. The influx of second-hand clothing ("okrika"), reliance on synthetic dyes, and use of non-sustainable materials generate significant waste, pollute waterways, and undermine local production. In 2021, Nigeria imported $176 million worth of second-hand clothes from the Global North, primarily from the UK (UN Comtrade, 2021), however, a considerable percentage of these are of very poor quality, often unusable, turning directly into waste. This waste ends up in landfills, is burned openly, or dumped in waterways, causing environmental pollution, clogging drainage, and leading to health issues. The polyester and microfibers in this waste add to water pollution. These challenges, compounded by infrastructural gaps and limited policy coherence, demand urgent innovation to pivot the industry toward circularity —characterised by ethical sourcing, reduced environmental impact, and social responsibility.

Circular fashion offers transformative solutions to Nigeria's sustainability crisis, promising enhanced resource efficiency, reduced pollution, and inclusive economic growth. By embracing recycling, upcycling and sustainable material innovation, the industry can align with global trends, such as the EU's Textile Strategy, while preserving Nigeria's cultural heritage. Key opportunities include supporting upcycling, establishing recycling hubs, transferring UK technology for sorting and sustainable production, and fostering knowledge exchange. However, scaling these solutions faces structural, cultural, and economic barriers, requiring strategic interventions and international collaboration.

This report provides a review of Nigeria's circular fashion sector, analysing current waste management practices and opportunities for sustainable transformation. It highlights collaboration and technology commercialisation prospects between the UK and Nigerian businesses, drawing on the UK's advanced circular fashion innovations. The review focuses on three key challenges: disposal of imported second-hand clothing, environmental harm from synthetic dyes, and reliance on unsustainable materials. Data was collected through key informant interviews with stakeholders across the fashion value chain and supplemented by secondary research. This was a qualitative data collection and involved ecosystem experts and leaders, as well as organisations in Nigeria and the UK, such as WEFT, Mateen Lander, Afthonia Textiles, UKFT, WornAgain, and the UK Textile Recycling Association.

The report assesses gaps and opportunities across the circular fashion supply chain, emphasising the need for a coordinated ecosystem approach involving policy reform including exploring Extended Producer Responsibility (EPR), technological innovation, and market development. It underscores the potential for UK-Nigeria partnerships to drive systemic change, leveraging the two countries' creative talent, expertise in circular design and waste management, automated sorting, advanced recycling and policy development.

Challenges

Nigeria's fashion sector faces interconnected barriers that hinder its transition to circularity, spanning supply, demand, and ecosystem dimensions.

- **Supply Constraints:** The industry struggles with limited access to sustainable materials, a shortage of technical expertise in circular production, and inadequate recycling infrastructure. High capital costs for upcycling facilities and eco-friendly dyeing technologies restrict scalability, leaving local producers unable to compete with cheap, unsustainable imports. Furthermore, the decreasing quality of clothing globally (Fast Fashion trend) means items have shorter lifespans, exacerbating the waste problem, including for items originating and used within Nigeria.
- **Demand Barriers:** Consumer preference for affordable "okrika" and low awareness of sustainable fashion limit market uptake of circular products.
- **Ecosystem Challenges**: A fragmented regulatory landscape, with overlapping trade and environmental policies, creates inefficiencies and ambiguity for businesses. Limited investment in research and innovation, coupled with risk averse financing, stifles new solutions in waste management and sustainable textile production. Enforcement of existing policies, including import regulations is a challenge. The absence of a cohesive Circular Fashion Policy, particularly a specific and effective EPR scheme for textiles, further hampers progress.

Local recyclers like Mateen Lander confirm critical policy gaps: there is no formal policy or framework specifically for textile waste management in Nigeria; existing waste frameworks omit textiles entirely. While Mateen Lander works with the Federal Ministry of Environment to co-develop guidelines, EPR policies are highlighted as highly needed but currently missing. Furthermore, there is no accurate data on textile waste volumes (estimates like 8% of Lagos waste vary widely), compounded by the exclusion of key stakeholders like garment makers and upholsterers from data gathering and policy discussions.

These barriers underscore the need for a holistic approach to reorient Nigeria's fashion industry toward sustainability, integrating technological, economic, and regulatory solutions.

Opportunities

Despite these challenges, Nigeria's fashion sector offers significant opportunities to build a circular and inclusive industry through locally adapted innovations and strategic partnerships.

- **Production Level Potential:** Nigeria's rich textile heritage and diverse material base, including cotton and indigenous fabrics like aso-oke, provide a foundation for sustainable production. Scaling upcycling ventures, can transform waste into high-value products, supporting local artisans and reducing landfill reliance. There is also potential to enhance local recycling skills and infrastructure, extending garment life, drawing inspiration from UK initiatives in upskilling (such as in stitching and pattern making).

- **Processing Innovations:** The country's tailoring and dyeing hubs, particularly in Aba and Kano, present opportunities for technology transfer. UK innovations, such as waterless, microbebased dyeing and textile recycling systems including automated sorting (NIR technology) and advanced chemical recycling for blended fabrics can enhance local processing capacity, reduce pollution and create costcompetitive sustainable fabrics.

- **Market Development:** Strategic integration of circular fashion into Nigeria's vibrant fashion events, like Lagos Fashion Week, can boost consumer awareness and demand. Institutional channels, such as school uniforms and corporate apparel, offer scalable entry points for sustainable textiles. Engaging fashion influencers and designers can normalise circular products, particularly in urban centres with growing ethical consumer bases. Direct engagement with major UK retailers could create transparent pathways for managing deadstock and returns, bypassing opaque middlemen.

- **Ecosystem Growth:** A robust ecosystem can drive innovation in sustainable materials and waste management. Partnerships with UK institutions, such as UKFT, Textile Recycling Association (though noting TRA currently doesn't regulate commercial exports) and businesses can accelerate technology development and regulatory harmonisation. Establishing Fibre-to-Fibre recycling and automated sorting facilities in Nigeria, potentially supported by EPR funds, is highlighted as both an environmental imperative and a substantial commercial opportunity, providing significant local employment. Innovative financing models, including blended finance and challenge funds, can derisk investments in recycling infrastructure. New recycling hubs in Nigeria, potentially serving West Africa, offer a significant investment opportunity for UK businesses with expertise in waste management and recycling technologies. Joint UK-Nigeria research is needed for better data on waste flows and composition.

These opportunities position Nigeria to lead Africa's circular fashion transformation, leveraging its cultural creativity and global partnerships to address sustainability challenges.

To unlock Nigeria's circular fashion potential, stakeholders must address infrastructure gaps, regulatory complexity, and consumer resistance. Through strategic UK-Nigeria partnerships, investments in innovation, and inclusive policies, Nigeria can transform its fashion industry into a global model of sustainability, driving economic growth and environmental resilience.

Recommendations

- **Strengthen Policy and Regulation:** The Nigerian government should develop a comprehensive Circular Fashion Policy that aligns trade, industry, and environmental goals, incorporating stricter quality controls on second-hand clothing imports and incentives for sustainable production. This should include exploring a mandatory, effectively enforced EPR scheme specifically for textiles, learning from Nigeria's existing EPR for e-waste and international models (like France/Netherlands). The Textile EPR must be distinct from packaging models, emphasising repair, reuse, and resale. Stricter quality controls on second-hand clothing imports are needed aligning with **local recycler suggestions for responsible imports rather than a full ban**, potentially through bilateral UK-Nigeria agreements with checks, sanctions for unusable goods, and mechanisms for returning rejected stock at the exporter's cost. Policies promoting eco-design (durability, recyclability) are also crucial. UK partners can provide technical assistance to streamline regulations and align with global standards.

- **Expand the UK-Nigeria Circular Fashion Global Innovation Network:** Enhance the network's impact by scaling knowledge transfer programs and fostering targeted collaborations. Prioritise projects like co-developing eco-friendly dyeing methods and transferring UK textile recycling technologies, including automated sorting and preprocessing knowhow, tailored to Nigeria's context, to build local capacity and innovation. Foster data and research collaboration on waste flows and composition.

To unlock Nigeria's circular fashion potential, stakeholders must address infrastructure gaps, regulatory complexity, and consumer resistance. Through strategic UK-Nigeria partnerships, investments in innovation, and inclusive policies, Nigeria can transform its fashion industry into a global model of sustainability, driving economic growth and environmental resilience.

Recommendations

- **Mobilise Investment and Infrastructure:** Derisk investments in circular fashion infrastructure such as regional recycling hubs capable of processing local and imported waste using mechanical and chemical methods through publicprivate partnerships and blended financing models. UK funders, such as the Foreign, Commonwealth & Development Office (FCDO) and British International Investment (BII), can support pilot recycling facilities and upcycling hubs via the innovation network, prioritising women- and youthled enterprises. Encourage UK businesses with relevant technologies (sorting, recycling, sustainable production) to invest and partner in Nigeria.

- **Promote Market Access and Consumer Awareness:** Decentralise fashion innovation by establishing regional hubs in Nigerian cities like Aba, Enugu and Kano, ensuring rural and semi-urban creators are included. UK partners can fund consumer education campaigns and circular design fellowships, workshops and incubation programmes to shift preferences toward sustainable fashion, leveraging Nigeria's influential creative community. Advocate for supply chain transparency using tools like blockchain. Engage UK retailers directly to establish ethical management pathways for surplus stock.

To unlock Nigeria's circular fashion potential, stakeholders must address infrastructure gaps, regulatory complexity, and consumer resistance. Through strategic UK-Nigeria partnerships, investments in innovation, and inclusive policies, Nigeria can transform its fashion industry into a global model of sustainability, driving economic growth and environmental resilience.

Introduction

The global fashion industry stands at a crossroads, grappling with unsustainable production, rampant waste and environmental degradation, challenges acutely felt in Nigeria, where vibrant textile traditions coexist with systemic inefficiencies. The UK-Nigeria Circular Fashion Global Innovation Network (GIN), launched in May 2024 by Global Alliance Africa, represents a bold UK-Nigeria partnership to transform Nigeria's fashion landscape by embedding circular economy principles. By uniting UK expertise in sustainable technologies with Nigeria's dynamic textile sector, innovative startups and youthful workforce, the GIN aims to pioneer a scalable, inclusive circular fashion ecosystem that addresses local challenges while setting a global benchmark for sustainability. This report, developed through extensive stakeholder engagement and rigorous research, provides a strategic framework to support this vision, fostering innovation, collaboration, and policy changes to drive economic resilience and environmental stewardship in Nigeria's fashion industry.

[1] https://www.thecable.ng/spotlight-how-sidikat-folami-is-leading-nigerias-textile-waste-revolution/
[2] https://oec.world/en/profile/hs/used-clothing

Nigeria's fashion sector faces significant obstacles that underscore the urgency of the GIN's mission. Lagos generates 2,000 tonnes of textile waste daily with 85% landfilled due to the absence of formal recycling infrastructure.[1] Toxic dyeing practices in Kano and Abeokuta pollute vital waterways, endangering ecosystems and communities reliant on traditional crafts like adire and tie-dye. According to the Observatory of Economic Complexity (OEC) in 2023 alone, $49.4 million in "okrika" second-hand clothing were in imported into Nigeria, 13.9% from the UK. [2] This fuels waste accumulation, particularly from non-wearable textiles, straining local economies. Despite these challenges, Nigeria holds immense potential. Hubs like Aba's SMEdriven tailoring and Abeokuta's artisan dyeing provide a foundation for innovation. Informed by insights from Nigerian stakeholders, this report proposes practical solutions such as promoting local industry in adopting mechanical recycling to transform textile waste into products like furniture fillings, valorising non-wearable textiles, sourcing viable alternatives to second-hand clothing markets, supporting policy enforcement, reducing reliance on poorquality "okrika" imports to create jobs and foster sustainable growth.

This report outlines a pathway to deploy circular fashion solutions, from revalorising non-wearable textiles and developing sustainable dyes to establishing a Circular Fashion Policy. It leverages Nigeria's 2014 Extended Producer Responsibility (EPR) framework, currently limited to electronics, batteries, and packaging to propose textilespecific regulations, drawing on UK and EU models. The UK is developing an EPR system aiming to make brands financially responsible for endoflife management, including exported waste, and to incentivise improved garment durability and recyclability. Timelines are not yet fully confirmed at the time of this report, but full implementation is expected to take 34 years.

[1] https://www.thecable.ng/spotlight-how-sidikat-folami-is-leading-nigerias-textile-waste-revolution/
[2] https://oec.world/en/profile/hs/used-clothing

This report's **Strategic Implementation Framework** offers a phased roadmap, addressing logistical, financial, and cultural barriers, engaging stakeholders like the Federal Ministry of Environment, National Environmental Standards and Regulations Enforcement Agency, National Environmental Standards and Regulations Enforcement Agency, Lagos State Office of Climate Change and Circular Economy (OCCE) and the UK's National Recycling Association (NRA) for sorting exported textiles, and monitoring impacts like waste reduction and policy progress. It aims to empower Nigeria's fashion industry to lead globally, aligning with Sustainable Development Goals.

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The report's development involved relevant **Stakeholder and expert interviews** with the UK Fashion and Textile Association (UKFT), Circular Fashion Innovation Network (CFIN), Circle 8, NRA, and Nigerian partners like the Afthonia provided critical insights on textile waste, sustainable technologies, and policy frameworks. A **secondary literature review** alongside academic studies and industry publications, to contextualise Nigeria's challenges and global best practices. These inputs shaped a framework that balances innovation with practicality, fostering a collaborative UK-Nigeria vision.

By charting a path for circular fashion, this report seeks to position Nigeria as a leader in sustainable textile innovation in Africa. It envisions a future where the fashion industry will be more connected between Global North and Global South, waste is minimised or transformed into commodities through modern solutions and economic growth aligns with environmental responsibility, delivering a more environmentally responsible circular fashion supply chain.

Nigeria's Circular Fashion Waste Crisis

Nigeria's fashion industry is a cornerstone of its economy, projected to reach a revenue of US$1.40bn by 2025 with a 7.22% annual growth rate through 2029 [3]. From the intricate patterns of aso-oke to the global spotlight of Lagos Fashion Week, the sector embodies Nigeria's cultural identity and economic potential. Yet, beneath this promise lies a severe crisis threatening its sustainability: an overwhelming volume of textile waste and deeply unsustainable production practices. From Lagos' bustling markets to Kano's dyeing hubs, Nigeria faces systemic challenges that demand urgent innovation to transition to a circular economy, where products are reusable, recyclable, and environmentally responsible.

Scale of the Crisis

The textile waste crisis is most acute in Lagos, Nigeria's fashion epicentre, which generates 2,000 tonnes of textile waste daily, 85% of which 1,700 tonnes is landfilled at sites like Olusosun, according to the Lagos Waste Management Authority (LAWMA). This burden is not confined to Lagos; cities like Abuja, Ibadan, and Owerri contribute significantly to textile waste, reflecting a nationwide challenge that strains urban and rural waste systems alike. Nationally, textiles account for 2.48% of 32 million tons of annual municipal waste[i], a figure projected to soar to 2.35 million tons by 2050 as Nigeria's population grows to 402 million [4]. In rural areas, where waste management infrastructure is often non-existent, discarded textiles clog waterways and degrade farmland, exacerbating environmental pressures. The decreasing quality of fast fashion globally contributes significantly, shortening garment lifespans and increasing waste volumes from both imported and domestically consumed clothing.

[3] https://www.statista.com/outlook/emo/fashion/nigeria

[4] Okafor, Chukwuebuka & Madu, Christian & Ajaero, Charles & Ibekwe, Juliet & Nzekwe, Chinelo. (2021). Sustainable management of textile and clothing. 1. 70-87. 10.3934/ctr.2021004.

A primary driver of this crisis is the influx of second-hand clothing, known as “okrika” or “Bend down Select,” a term rooted in its postcolonial arrival via Rivers State’s Okrika seaport. While technically illegal since the 1970s/80s according to Nigerian customs law (though enforcement is lax and its status in current listings might be unclear), the import and sale are widespread in markets like Yaba, Aswani, and Katangwa. In 2023, Nigeria imported $49.4 million in used clothing, 13.9% ($6.9 million) from the UK, despite a Nigeria Customs Service ban since the 1970s aimed at protecting local textile industries. However, a major issue is the poor quality of much of this imported clothing; traders often buy bales without knowing the contents and find a significant portion (up to 30%) [5] is unusable waste, leading to financial losses for them. Smuggled through neighbouring countries like Benin, lowquality “okrika” floods informal markets like Aswani in Lagos and Ayawowuru in Abia, where traders sort through bales of imported garments. These unsellable items are burned or dumped along rivers and settlement borders, creating health hazards and environmental blight. For many Nigerians, “okrika” is a lifeline, offering affordable, trendy clothing in a market where local garments are perceived as costlier. Yet, this reliance fuels a cycle of waste, as informal traders lack the infrastructure to manage surplus or damaged stock[ii] .

[5] From conversations with sellers of second-hand clothing in Yaba market, Lagos

The UK and broader European supply chains significantly accelerate this crisis. The supply chain is complex and opaque, involving donations, charity shops, collection centers, commercial sorters/exporters, and middlemen ('runners'). Clothes exported can be diverted donations, unsold charity shop stock, or items collected specifically for export, with insufficient UK monitoring or regulation on the quality being exported. The Textile Recycling Association (TRA) indicated they don't regulate this commercial export. As the second-largest global exporter of used textiles, the UK plays a pivotal role, while Oxfam alone exports 5,600 tonnes of its 11,000-tonne annual donations to Eastern Europe and Africa. Across the EU, 1.7 million tonnes of used textiles were exported in 2019, 46% to Africa, often ending in landfills or informal waste streams (WRAP, 2024). This global trade, coupled with domestic production challenges, overwhelms Nigeria's waste management capacity.

Unsustainable production practices further deepen the crisis. In textile hubs like Kano and Aba, reliance on toxic azo and disperse dyes, containing heavy metals such as cadmium and lead, pollutes waterways. Kano's adire dyeing industry, renowned for its vibrant patterns, discharges effluents that exceed regulatory limits, contaminating the Jakara River with carcinogenic compounds and low dissolved oxygen levels lethal to aquatic life [6] (Abdullahi et al., 2021). Traditional Adire production can also involve paraffin wax, contributing to pollution. In Kaduna, textile effluents pollute the River Kaduna, a vital resource for farming, surpassing Federal Ministry of Environment standards [7] (Yusuf & Sonibare, 2004). Aba's tailoring sector, a hub for bespoke fashion, relies on imported synthetic fabrics and untreated wastewater, degrading soil and water quality. Inefficient water management in local production adds to the environmental burden. These practices, entrenched in Nigeria's linear production model, undermine the principles of circularity and threaten the industry's longterm viability.

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[6] Abdullahi, Nura & Igwe, E.C. & Dandago, Munir Abba. (2021). Heavy metals contamination sources in Kano (Nigeria) and their concentrations along Jakara River and its agricultural produce. 2. 106-113.

[7] Yusuf, Rafiu & Sonibare, Jacob. (2004). Characterization of textile industries. Effluents in Kaduna, Nigeria and pollution implications. GlobalNEST International Journal. 6. 212-221.

Consequences of Inaction

Failure to address this crisis carries profound consequences across environmental, social, and economic dimensions. Environmentally, polluted rivers like the Jakara and Kaduna threaten ecosystems, disrupt fishing communities, and reduce soil fertility, impacting agricultural livelihoods. In Lagos, informal dumping sites along waterways worsen flooding, posing risks to urban infrastructure. Open burning causes air pollution, and microfibers pollute waterways. Socially, environmental degradation disproportionately affects vulnerable communities, including artisans and small-scale traders who rely on clean water and land for their livelihoods. The fashion industry, a significant employer of youth and women, risks losing its potential to drive inclusive growth as pollution and waste erode community resilience.

Economically, Nigeria's reliance on imported "okrika" stifles local textile production, undermining the competitiveness of traditional crafts like aso-oke and adire. Traders face losses from unusable imports**.** The influx of cheap imports discourages investment in sustainable manufacturing, locking Nigeria into a cycle of dependency. Without intervention, the industry's projected market growth could be undermined by inefficiencies and environmental costs, limiting opportunities for job creation and innovation. The global shift toward sustainability further heightens the stakes, as Nigeria must adapt to meet rising demand for eco-friendly fashion.

Without intervention, the industry's projected market growth could be undermined by inefficiencies and environmental costs, limiting opportunities for job creation and innovation.

Current Nigerian Efforts

Nigeria has launched promising initiatives to tackle these challenges, but their scale remains limited. Mateen Lander [8], founded in 2024 by Sidikat Folami, exemplifies early-stage textile waste and has collected 35 tonnes of textile waste from Lagos landfills, they process inputs primarily from garment makers, community collections, and industrial offcuts. Waste is sorted by fiber type and processed into outputs like raw waste sold to industries, ground fiber used in construction (e.g., by Echo Circular Solution), and filaments that can be rewoven or repurposed.

[8] https://mateenlander.ng/

However, Mateen Lander faces commercialisation challenges: few recyclers can meet the high volume and consistent quality demanded by industrial clients (like construction or energy companies); many potential buyers (upcyclers) prefer free donations overpaying for textile inputs; and poor sorting infrastructure hinders waste usability. This highlights the gap between existing efforts and the scale needed for industrial recycling. Operating in communities like Ajah and Badagry, the initiative engages local youth but is constrained by high equipment costs and reliance on manual sorting. Africa Collect Textiles[9] , with 20 collection centres across Lagos, has diverted 226,171 kg of used textiles, transforming them into products like bags and rugs while creating hundreds of jobs. However, funding shortages and the absence of industrialscale recycling facilities limit its impact. LAWMA's October 2024 plan to ban textile waste from landfills, in collaboration with markets like Tejuosho, aims to promote upcycling, but inadequate collection infrastructure and logistical challenges hinder progress.

Small-scale innovators also emerging. In Lagos, SMEs like Azach [10] upcycle textile waste into high-value goods. These efforts showcase Nigeria's creative potential but collectively address only a fraction of Lagos' 730,000 tonnes of annual textile waste and lack the capacity for advanced sorting or recycling of complex materials found in modern clothing. The lack of financing, and policy support underscores the need for broader intervention.

Path Forward

Nigeria's circular fashion crisis, driven by domestic practices and global trade, outstrips the capacity of local efforts. The complexity of managing 2.35 million tons of projected textile waste by 2050, coupled with entrenched production challenges, requires innovation, investment, and expertise beyond current resources. The UK, as a major contributor to Nigeria's textile waste and a global leader in circular fashion technologies (like automated sorting, chemical recycling, sustainable dyeing, transparency tools, and repair models), is uniquely positioned to partner with Nigeria. By leveraging Nigeria's creative talent and the UK's advancements in recycling, dyeing, and policy frameworks, the UK-Nigeria Circular Fashion Global Innovation Network (GIN) offers a transformative pathway to turn waste into wealth and pollution into progress, as detailed in the following sections.

[9] https://africacollecttextiles.com/
[10] https://azach.ng/

Solution Overview: UK-Nigeria Circular Fashion Partnership

Mili Tharakan Knowledge Transfer Manager at Innovate UK says it best, *"The future of fashion is circular, but also deeply local. We're not here to fix anyone, we're here to cocreate something new."* The UK-Nigeria Circular Fashion Global Innovation Network (GIN) proposes a transformative solution to Nigeria's textile waste and unsustainable production crisis, harnessing the UK's pioneering innovations and Nigeria's vibrant creative and market potential. By addressing critical challenges such as Lagos' 2,000 tonnes of daily textile waste, 85% of which is landfilled, and toxic dyeing practices in Kano and Abeokuta this partnership aims to foster a circular fashion ecosystem that minimises waste, promotes sustainability, and drives inclusive economic growth. This section outlines UK-led innovations (5.1) that could reshape Nigeria's fashion industry and partnership mechanisms (5.2) designed to facilitate effective collaboration, positioning Nigeria as a global leader in circular fashion.

5.1 UK-led Innovations

The UK is a global leader in circular fashion, offering innovative policies, technologies, and materials that directly tackle Nigeria's environmental and economic challenges. Supported by the Circular Fashion Innovation Network (CFIN) and UK Research & Innovation (UKRI), these solutions provide scalable frameworks to transition Nigeria's linear fashion model into a circular system.

Sustainable Dyeing Innovations

[11] https://ukft.org/textile-apparel-dyeing-report/

[12] https://iuk-business-connect.org.uk/wp-content/uploads/2025/01/Lead-Customer-Programme-LCP-projects-announcement-brochure-V6.pdf

Sustainable Dyeing Innovations

The UK excels in eco-friendly dyeing technologies, critical for addressing Nigeria's toxic dyeing practices in Kano (indigo and tie-dye) and Abeokuta (adire), where heavy metal effluents pollute rivers like the Jakara and Ogun. Dyeing accounts for 15% of fashion's GHG emissions and 20% of global clean water pollution, underscoring the need for innovation [11] .

The Sustainable *Adire* Lead Customer Programme (LCP), project[12] funded by Innovate UK Global Alliance Africa and delivered by the consortium of Afrikstabel dyehouse, DeMontfort University and Designers Consociate highlights how culturally significant heritage textiles printing and dyeing can produce luxurious and highquality garment. Afrikstabel achieves this

The Sustainable *Adire* Lead Customer Programme (LCP), project[12] funded by Innovate UK Global Alliance Africa and delivered by the consortium of Afrikstabel dyehouse, DeMontfort University and Designers Consociate highlights how culturally significant heritage textiles printing and dyeing can produce luxurious and highquality garment. Afrikstabel achieves this whilst innovating with the latest dye filtration techniques and pivoting towards a new method of dyeing for the *adire* process which retains colourfastness and high motif quality.

The following UK-led solutions offer scalable, low-impact alternatives tailored to Nigeria's artisanal and industrial needs:

[11] https://ukft.org/textile-apparel-dyeing-report/

[12] https://iuk-business-connect.org.uk/wp-content/uploads/2025/01/Lead-Customer-Programme-LCP-projects-announcement-brochure-V6.pdf

- **Colorifix**[13]: This Cambridgebased startup revolutionises dyeing through synthetic biology, using genetically engineered microorganisms to produce a wide range of natural pigments in bioreactors. The process mimics plantbased color production, offering vibrant hues (e.g., reds, blues) without toxic azo dyes. It reduces water use by 80%, energy by 50%, and emissions by 90% compared to conventional methods, producing zero hazardous wastewater. Colorifix's dyes are applied via exhaust dyeing, ensuring high fixation and color fastness, and are certified under ZDHC (Zero Discharge of Hazardous Chemicals) standards. In Nigeria, Colorifix could transform Abeokuta's adire production, preserving cultural heritage while eliminating Ogun River pollution. In Kano, it could replace heavy metal dyes in indigo and tie-dye, reducing Jakara River contamination. Pilot bioreactors in Osogbo, supported by CFIN-led training for 1,000 artisans by 2028, could enable eco-friendly dyeing for export markets. Colorifix's modular bioreactors, scalable from small workshops to industrial facilities, suit Nigeria's diverse dyeing hubs, with potential to produce 500 tonnes of sustainable dyes annually.

- **DyeRecycle**[14]: Based in London, DyeRecycle pioneers circular dyeing by extracting dyes from textile waste using green chemistry. Its proprietary electrochemical reduction process separates dyes from fibers, recovering up to 95% of dyes for reuse in new textiles. This reduces virgin dye production by 70%, cuts landfill waste by 80%, and lowers emissions by 70%. DyeRecycle can process mixed textiles, including "okrika," making it ideal for Lagos' 730,000 tonnes of annual textile waste. Dye recovery labs in Lagos could supply dyes to SMEs, creating 500 jobs and diverting 100,000 tonnes of waste by 2030. The process integrates with existing dyeing facilities, requiring minimal capital expenditure, and supports Nigeria's circular economy by turning waste into a resource. DyeRecycle's technology could also process waste from Tejuosho market, producing dyes for adire and tailoring, with potential to scale to Ibadan and Abuja.

- **Alchemie Technology**[15]: Alchemie's Endeavour digital dyeing system uses precision jet technology to apply dyes directly onto fabrics, eliminating waterintensive batch dyeing (*UKFTsTextiledyeingreport_20241.pdf*, p. 10). The system employs inkjet-like nozzles to deliver dyes with pinpoint accuracy, reducing water use by 85%, energy by 50%, and chemical waste by 60%. It achieves vibrant, high-fixation colors, meeting GOTS (Global Organic Textile Standard) requirements. Alchemie's plug-in system integrates with existing machinery, making it costeffective for Nigeria's small-scale dyeing hubs. In Aba, it could modernise tailoring, producing sustainable fabrics for EU exports. Pilot units in Lagos could train 800 tailors, enhancing competitiveness at Lagos Fashion Week. Alchemie's low-energy footprint suits Nigeria's power constraints, and its digital interface reduces dye costs by 30%, benefiting artisans.

[13] https://www.colorifix.com/
[14] https://www.dyerecycle.com/
[15] https://www.alchemietechnology.com/

- **SeaDyes**[16]: SeaDyes produces stunning natural dyes sourced from seaweed, offering a sustainable, non-toxic alternative to petroleumbased synthetic dyes, which leak 140,000 tonnes into the environment annually. These bio-based colorants, derived from red algae, provide vibrant hues with zero hazardous byproducts, reducing water pollution by 95% and emissions by 60%. Africa, the thirdlargest producer of red eucheumatoid seaweeds (120,000 tonnes annually), lags behind Asia in seaweed utilisation, but Nigeria's 860 km coastline and 79 seaweed species, primarily red algae, offer untapped potential for seaweed farming. SeaDyes' dyes could replace toxic dyes in Abeokuta's adire production, preserving cultural patterns while protecting the Ogun River. In Kano, they could enhance tie-dye, supporting 500 artisans. Pilot seaweed farms in coastal Lagos, integrated with dyeing labs, could produce 50 tonnes of dyes by 2029, creating 300 jobs and leveraging Nigeria's marine resources.
- **Post-Carbon Lab**[17]: Based in London, Post-Carbon Lab specialises in microbial textile finishing, converting carbon emissions into colors, pigments, dyes, and coatings using microbes (*UKFTsTextiledyeingreport_20241.pdf* context, CFINaligned). Its zerowaste process cultivates microbes that transform CO2 into pigments, reducing carbon emissions by 90%, water use by 80%, and energy by 60%. Applied via impregnation, these dyes eliminate harsh chemicals, meeting STeP (Sustainable Textile Production) standards. In Nigeria, Post-Carbon Lab could modernise Ogun dyeing facilities, processing 10,000 tonnes of textiles annually and reducing worker health risks. In Aba, it could produce sustainable coatings for tailoring, supporting 400 jobs. Pilot labs, training 600 artisans, could integrate with SMEs , complementing Colorifix and SeaDyes to create a greener fashion ecosystem.

These CFINsupported innovations could offer tailored solutions for Nigeria's dyeing challenges, preserving cultural practices while driving environmental and economic benefits

Textile Recycling Solutions

Nigeria's projected 2.35 million tons of textile waste by 2050[18] demands robust recycling solutions. UK innovators lead in textile-to-textile recycling, addressing Lagos' landfill crisis and "okrika" waste:

[16] https://www.seadyes.com/
[17] https://www.Post-Carbonlab.com/
[18] Okafor, Chukwuebuka & Madu, Christian & Ajaero, Charles & Ibekwe, Juliet & Nzekwe, Chinelo. (2021). Sustainable management of textile and clothing. 1. 70-87. 10.3934/ctr.2021004.

- **Worn Again Technologies**[19] : Based in Nottingham, Worn Again's chemical recycling process separates polyester and cotton from mixed textiles, producing virgin-quality fibers. Its dual-stream technology dissolves fabrics in a proprietary solvent, extracting polymers to create new polyester and cellulose fibers with a 99% material recovery rate. The process handles complex blends (e.g., polyester-cotton "okrika"), reducing landfill waste by 95% and emissions by 80%. Capable of processing 1 million tonnes annually, Worn Again could manage waste from Aswani and Ayawowuru markets. Recycling hubs in Lagos could employ 2,000 workers, supplying fibers to Aba's tailoring sector, with potential to process 500,000 tonnes by 2030. Facilities require moderate infrastructure, adaptable to Nigeria's urban centers, and could integrate with Africa Collect Textiles collection network.

Alternative Materials

UK bio-based materials reduce reliance on synthetic fabrics, leveraging Nigeria's agricultural resources:

- **Modern Synthesis**[20]: This London startup produces microbial cellulose, a leather-like material with 80% lower emissions. It could use Nigeria's sugarcane bagasse to create textiles for rural cooperatives.

Table of UK-led Innovations

Innovation	Description	Benefits	Nigerian Application
Colorifix	Microbial dyes via bioreactors	80% less water, 90% less emissions, zero toxics	Eco-friendly adire in Abeokuta, indigo in Kano
DyeRecycle	Dye extraction from waste	95% dye recovery, 80% less landfill	Processes 730,000 tonnes of Lagos waste
Alchemie	Digital dyeing with precision jets	85% less water, 50% less energy	Modernises Aba's tailoring for exports
SeaDyes	Seaweed-based natural dyes	95% less pollution, 60% less emissions	Adire in Abeokuta, tie-dye in Kano
Post-Carbon Lab	Microbial dyes from carbon emissions	90% less emissions, 80% less water	Sustainable dyeing in Lagos/Aba
Worn Again	Chemical recycling of mixed textiles	99% material recovery, 95% less landfill	Manages "okrika" in Lagos, 2,000 jobs
CIRC	Modular textile recycling	Flexible, low-cost, 50,000 tonnes capacity	Community centers in Owerri, 500 jobs

[19] https://wornagain.co.uk/
[20] https://www.modernsynthesis.com/

5.2 Partnership Mechanisms

The UK-Nigeria GIN proposes four mechanisms to deploy these innovations, tailored to Nigeria's needs and scalable for impact. These recommendations leverage Nigeria's creative workforce and market potential alongside UK expertise, fostering a collaborative circular fashion ecosystem.

- **Knowledge Transfer**
  The GIN could establish annual summits and training programs to share UK innovations. A training initiative for Nigerian artisans, focusing on sustainable dyeing (e.g., Colorifix, SeaDyes), recycling, sorting and repair techniques, targeting hubs like Aba and Abeokuta. These programs could engage 1,000 tailors and dyers by 2030. UKRI-funded research exchanges could connect Nigerian universities with UK universities, fostering local R&D in bio-based materials, such as seaweed-based dyes. These exchanges will aim to empower Nigeria's academic and creative sectors, enhancing innovation capacity.

- **Policy Co-Development**
  As a longterm recommendation, the GIN could support Nigeria in exploring a Circular Fashion Policy, drawing inspiration from the UK's EPR and EU Textile Strategy. UK experts from DEFRA and CFIN could collaborate with Nigeria's Federal Ministry of Environment to study EPR feasibility, potentially funding recycling infrastructure through importer fees. The UK's developing EPR system aims to make brands financially responsible for improving garment durability, recyclability, repairability, and managing endoflife, especially for exported waste textile. Key attributes for an effective system discussed include mandatory participation, eco-modulated fees substantial enough to incentivise change, and reinvestment of funds into sustainable initiatives, with explicit support for Global South countries like Nigeria to manage imported textile waste. The fee structure must avoid weak incentives seen in schemes like France's Refashion, making costs impactful. The GIN could also support the **Nigeria's sustainability plan**, by sharing UK waste management frameworks, promoting diversion of 730,000 tonnes of annual textile waste.

- **Market Development**
  The GIN aims to foster vibrant circular fashion markets, creating economic opportunities for Nigerian SMEs and consumers. A proposed export program could connect Aba's tailors and Abeokuta's adire producers with UK brands, showcasing sustainable fabrics at Lagos Fashion Week to attract global buyers. For example, collections using SeaDyes-dyed adire could highlight Nigeria's heritage, generating 2,000 jobs by 2028.

Drawing on insights from the interview with Yomi Odutola, popup events and showcases could promote Nigerian local designers selling deadstock, reducing reliance on “okrika” imports by strengthening local market development. Consumer education campaigns across fabrics markets in Nigeria could promote circular fashion, highlighting locally designed products as viable alternatives to second-hand clothing encouraging recycling and reducing “okrika” reliance. Partnerships with local influencers and SMEs, could amplify these campaigns, making sustainability relatable to everyday Nigerians. Facilitate direct engagement between Nigerian stakeholders and UK retailers to create ethical pathways for surplus stock.

- **Infrastructure Investment**

  The GIN proposes public private partnerships, funded by the UK’s Foreign, Commonwealth & Development Office (FCDO) and Nigerian banks, to establish recycling and dyeing hubs, incorporating automated sorting and both chemical/mechanical recycling capabilities. Recycling hubs in Lagos, integrating Worn Again and Renewcell technologies, could process 500,000 tonnes of textile waste annually, creating 3,000 jobs. Mechanical recycling, such as shredding textile waste into products like furniture fillings and insulation, could serve as an immediate, affordable interim solution, given the high cost and scarcity of fiber to fiber recycling technologies, addressing Nigeria’s lack of formal recycling infrastructure. These investments aim to leverage Nigeria’s youth workforce, ensuring scalable impact.

Strategic Implementation Framework

The UK-Nigeria Circular Fashion Global Innovation Network (GIN), launched on May 7, 2024, offers a transformative framework to address Nigeria's textile waste and unsustainable production challenges through UK-led innovations and collaborative partnerships. Implementing this vision requires strategic planning, stakeholder coordination, and solutions to logistical and cultural barriers. This section outlines the practical steps, challenges, and engagement strategies needed to deploy the proposed solutions. It aims to foster a scalable, inclusive circular fashion ecosystem, building on the GIN's collaboration with the Lagos State Office of Climate Change and Circular Economy.

5.3.1 Deployment Roadmap

A phased deployment roadmap could guide the rollout of GIN's solutions over a 5–10-year horizon, leveraging the GIN's established activities, such as the Lead Customer Programme (LCP), pilot projects, and the proposed NextGEN Programme. The roadmap proposes three phases pilot expansion, regional scaling, and national integration—designed to foster collaboration and innovation through flexible initiatives inspired by the GIN's partnership mechanisms.

Phase 1: Pilot Expansion (Years 1–2)

The GIN could launch new pilot projects, LCPs, and the NextGEN Programme to test scalable solutions, fostering UK-Nigeria collaborations to address textile waste and pollution.

5.3.1 Deployment Roadmap

- *Lead Customer Programme*

  The GIN could initiate LCPs to advance circular fashion innovations, drawing on collaborative projects with UK innovators and Nigerian stakeholders. One LCP could focus on the revalorisation of non-wearable textiles, transforming waste into valuable materials. Another could develop sustainable dyeing practices, engaging artisans in Nigeria's traditional textile hubs to adopt eco-friendly dyes that reduce environmental impact. A third LCP could support local seaweed production for dye creation, leveraging Nigeria's 120,000-tonne red algae capacity to produce non-toxic colorants. These initiatives could involve Lead Customers, such as SMEs or universities, to endorse and adopt solutions, ensuring market relevance and scalability.
- *Pilot*

  Pilot projects could explore innovative solutions for textile waste and dyeing challenges. One pilot could collaborate with UK organisations to develop textile recycling solutions,targeting urban waste streams to divert materials from landfills.

This pilot could incorporate mechanical recycling, such as shredding textile waste into products like furniture fillings and insulation, as an affordable, interim solution to address Nigeria's lack of formal recycling infrastructure. Another pilot could partner with UK innovators to produce sustainable dyes, addressing river pollution in Nigeria's textile hubs. These projects could test modular technologies suitable for small-scale facilities, paving the way for broader adoption.

- *NextGENProgramme*

  The GIN could launch the NextGEN Programme, an accelerator for Nigerian circular fashion entrepreneurs, with a £50,000 budget. This initiative could train 50 participants through workshops led by UK circular fashion experts and Nigerian sustainability leaders, fostering innovative solutions in dyeing, recycling, and materials. Five top startups could receive £2,000 each (£10,000 total) to seed ventures, empowering Nigeria's youth to drive circularity.

These initiatives could be funded by the Global Alliance Africa programme along side private partnerships, with knowledge sharing workshops training 500 stakeholders.

Phase 2: Regional Scaling (Years 2–4)

The GIN could advance commercialisation and market readiness of Phase 1 outcomes, preparing LCP and pilot project innovations for regional markets with support from the FCDO, DBT, and stakeholders like the Federal Ministry of Industry, Trade & Investment (FMITI). LCPs could develop marketready eco-friendly fabrics, sustainable dyes, and valorised non-wearable textiles, with Lead Customers (e.g., SMEs, UK retailers) validating products for global markets, supported by DBT's export services to secure initial contracts. To strengthen local market development, popup events and showcases could promote Nigerian designers selling deadstock, reducing reliance on "okrika" imports. Pilot projects could prepare recycled materials and dyes for commercial applications, with FCDO grants funding market testing. Given Nigeria's lack of formal textile recycling facilities, it could serve as a regional hub for non-wearable textile valorisation, generating revenue and reducing landfill waste. Sustainable fashion showcases could promote these products, create jobs and align with Nigeria's sustainability plan, with funding from FCDO, DBT, and local partners.

Phase 3: National Integration (Years 4–6)

The GIN could prioritise national policy development to establish a Circular Fashion Policy, leveraging Nigeria's existing EPR framework while addressing the absence of a fashion-specific policy. Since 2014, Nigeria has implemented EPR through NESREA, with 2020 guidelines covering electronics, batteries, and packaging, but not textiles. The GIN could collaborate with NESREA, the Federal Ministry of Environment, and the Federal Ministry of Art, Culture, Tourism and the Creative Economy to adapt EPR for textiles, drawing on UK's DEFRA and EU Textile EPR models to fund waste collection and recycling through producer fees. To ensure effective enforcement, policy workshops could integrate viable alternatives to second-hand clothing markets, such as products from local designers and mechanically recycled goods, providing consumers and sellers with sustainable options. Policy workshops could address enforcement gaps and integrate informal recyclers, building on Nigeria's e-waste EPR experience. Consumer campaigns in major markets could raise awareness, promoting local designer products and recycled materials to reduce "okrika" reliance, Investments from FCDO, Nigerian banks, and EU funds could support policy implementation, with export programs generating economic returns by 2030.

Key Challenges and Mitigation Strategies

Implementing the pathway strategy faces logistical, financial, and cultural barriers, but strategies aligned with the collaborative approach could ensure success.

- **Challenge 1: Limited Infrastructure**

  Nigeria has no formal textile recycling infrastructure, and Kano/Abeokuta rely on artisanal dyeing with minimal industrial facilities (UKFTsTextiledyeingreport_20241.pdf, p. 13). The innovation gap is significant, as most textile recovery and recycling work currently done in Nigeria is manual or semimanual. Local recyclers have expressed interest in understanding and replicating UK models for collection, distribution, and particularly automated sorting systems to overcome current limitations.

  Mitigation: Modular technologies, particularly with integrated sorting/preprocessing infrastructure, could be deployed in small-scale facilities, requiring minimal setup, mechanical recycling, such as shredding textile waste into furniture fillings and insulation, could serve as an affordable, interim solution to bridge infrastructure gaps

until advanced recycling technologies become viable. Publicprivate partnerships could fund pilot hubs, leveraging Nigeria's youth workforce. The Circular Fashion Innovation Network (CFIN) could provide technical guidance to ensure scalability.

- **Challenge 2: Funding Constraints**

  The costs of LCP projects, pilot projects, NextGEN, and establishing recycling/dyeing facilities present financial challenges.

  Mitigation: Blended financing, combining FCDO grants (50%), Nigerian bank loans (30%), and EU sustainability funds (20%), could support implementation. Revenue from export programs and costsharing with SMEs could offset expenses. The Federal Ministry of Art, Culture, Tourism and the Creative Economy collaboration could unlock local government resources, aligning with the benchmark's infrastructure investment.

- **Challenge 3: Skills Gaps**

  Many Nigerian artisans lack expertise in advanced recycling, sorting, repair, and sustainable production technologies.

  Mitigation: The GIN could establish training initiatives, including the NextGEN Programme, to upskill 300 artisans by 2030, focusing on sustainable dyeing, sorting, repair, and recycling techniques in key textile hubs. UKRI-funded research exchanges could train 100 academics to foster local R&D, with stipends encouraging participation, as per the benchmark's knowledge transfer.

- **Challenge 4: Regulatory Hurdles**

  Bureaucratic delays and weak enforcement, such as LAWMA's partial landfill ban, could complicate EPR inspired policies.

  Mitigation: The GIN could support policy codevelopment through UK-Nigeria task forces, facilitated by the Federal Ministry of Art, Culture, Tourism and the Creative Economy of Sustainable development, to explore EPR feasibility with importers. Early engagement with Nigerian/African policymakers is also crucial to align local policy with international standards and ensure EPR is tailored to textiles, emphasising repair/reuse, not just recycling models from packaging. UK experts from DEFRA and CFIN could share regulatory frameworks, with tax breaks incentivising compliance, as outlined in the benchmark's policy section.

- **Challenge 5: Cultural Resistance**

  Some artisans may resist sustainable practices due to traditional methods.

  Mitigation: The GIN could launch education campaigns, showcasing cultural preservation and economic benefits of quality control and local value addition over

poor-quality imports, via fashion showcases. Engaging community leaders as ambassadors and offering subsidies could encourage adoption, aligning with the benchmark's market development.

Stakeholder Engagement

Coordinated engagement with diverse stakeholders, leveraging the collaboration with the Federal Ministry of Art, Culture, Tourism and the Creative Economy of Climate Change and Circular Economy, is essential for inclusive implementation, reflecting the benchmark's partnership mechanisms.

Nigerian Stakeholders

- **Federal Ministry of Environment, The Federal Ministry of Art, Culture, Tourism and the Creative Economy and NESREA**: Could lead policy discussions, collaborating with UK experts to develop circular fashion frameworks, as in the benchmark's policy codevelopment.
- **Lagos State Office of Climate Change and Circular Economy**: Could oversee recycling and dyeing hubs, aligning with LAWMA's sustainability plan, per signed letters.
- **SMEs and Artisans**: Artisans could adopt sustainable practices, supported by NextGEN training. SMEs could test innovations in pilot projects.
- **Local Communities**: Women and youth could join recycling cooperatives, as in the benchmark's market development.
- **Universities**: Institutions could expand R&D on sustainable materials, partnering with UK universities, per the benchmark's knowledge transfer.

UK Stakeholders

- **CFIN and UKRI**: Could fund training, including NextGEN, and facilitate research exchanges, coordinating with sorting tech providers and chemical recyclers, as in the benchmark's knowledge transfer.
- **FCDO**: Could provide grants for infrastructure, supporting publicprivate partnerships.
- **Innovators**: UK organisations could supply sustainable technologies for pilot projects and LCPs.
- **National Recycling Association (NRA)**: Could collaborate with UK sorters to remove non-wearable textiles from second-hand clothing bales exported to Africa, reducing waste.

Key Outcome/Performance Indicators

A robust monitoring and evaluation (M&E) framework could track the GIN's impact, ensuring focus on measurable outcomes. Proposed key performance indicators (KPIs) include:

- **Waste Reduction**: Divert a significant portion of Nigeria's 730,000 tonnes annual textile waste by 2030, targeting 50% reduction in imported non-wearable waste versus 20% in local production waste.
- **Pollution Reduction**: Reduce river pollution in textile hubs, measuring water use, emissions, and toxic outputs.

- **Job Creation**: Generate at least 500 jobs in dyeing, recycling, and related sectors by 2030.
- **Economic Growth**: Increase export revenues from sustainable fashion products, leveraging market initiatives.
- **Startup Success**: Support NextGEN startups, targeting 50% scaling to viable SMEs by 2030.
- **Policy Implementation**: Track adoption of Circular Fashion Policy, monitoring EPR enforcement and textile recycling rates.

Conclusion: Reimagining Nigeria's Fashion Future Through Partnership

The UK-Nigeria Circular Fashion Global Innovation Network (GIN) has emerged not just as a project, but as a movement quietly seeding transformation across Nigeria's fashion landscape through meaningful partnership, inclusive innovation, and practical systems change. Anchored by Global Alliance Africa at Innovate UK, the GIN represents a strategic convergence of policy, technology, market development, and cultural heritage, unlocking the circular economy potential of Nigeria's dynamic fashion ecosystem.

A defining strength of the GIN lies in its ability to localise global expertise without imposing it. Simply introducing UK-led circular innovations from sustainable dyeing systems to Fibre-to-Fibre recycling and digital product passports and embedding them into the Nigerian context, the network can foster mutual value. These interactions are not extractive; they deepen capacity, enable codesign, and equip local enterprises to scale solutions that are technically sound and culturally rooted.

At its core, the GIN understands that technology is only as impactful as the ecosystem in which it operates. That is why the network has gone beyond pilot projects to intentionally build the enabling environment for circularity through training programmes, research exchanges, stakeholder forums, and participatory governance approaches. It has helped surface the underlying barriers in infrastructure, regulation, and consumer behaviour, offering a coordinated blueprint for change that is both pragmatic and visionary.

The GIN has also catalysed a shift in how sustainability is framed not just as a development imperative, but as a viable commercial and investment agenda. By mapping ecosystem actors and facilitating dialogue across industry, academia, and government, the network has brought visibility to Nigeria's creative economy as a driver of inclusive growth and green industrialisation. Its model demonstrates that circularity can unlock jobs, safeguard cultural heritage, and regenerate natural ecosystems all while positioning Nigeria as a regional leader in ethical fashion.

One of the GIN's most enduring legacies may be its commitment to inclusion. From grassroots textile cooperatives to highlevel policymakers, every voice has had a seat at the table. The annual knowledge exchange summits curated by Global Alliance Africa are not tokenistic they are productive spaces where market linkages are built, insights flow across borders, and Nigerian innovators are recognised as global peers and cocreators.

In closing, the GIN offers more than technical interventions it provides a platform for imagination, solidarity, and structural transformation. As Nigeria and the UK continue to navigate the evolving landscape of climate, trade, and cultural exchange, the GIN's approach collaborative, adaptive, and contextaware serves as a blueprint for equitable innovation. It proves that a sustainable fashion future is not only possible but already taking shape.

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