

THE FUTURE OF FASHION

A Deep Transformation Towards Circular,
Sustainable, Halal, and Ethical Models



About the Document

This strategic foresight report, developed by Sustainadility in strategic partnership with CLIMENA, catalyzes transformative systems change in the fashion value chain – from extractive linear paradigms to regenerative sustainable, halal-compliant, and circular ecosystems. Leveraging data triangulation, it equips consumer, investors, business, policy makers and other stakeholders with evidence-based pathways to unlock opportunities amid escalating regulatory convergence and Gen Z/Alpha demand shifts. While the analysis focuses on 2025 data, selected data from earlier years is also used to contextualize trends and trajectories.

Disclaimer

Projections represent forward-looking estimates derived from publicly available 2025 sources, with select historical data incorporated solely to illustrate trend dynamics, no guarantee of accuracy or completeness. This document constitutes neither financial nor legal advice. Past trends do not predict future outcomes. Sustainadility, CLIMENA, and affiliates disclaim all liability for actions taken based hereon. Professional counsel is advised for context-specific applications.

FASHION INDUSTRY AT A GLANCE

430M
people employed

Annual Production

100B
garments

33B

footwear, accessories,
sportswear

Annual Waste

70%-85%

63% - 80%

\$1.8T

\$0.9T

\$0.5T



Apparel



Footwear,
Accessories,
Sportswear



Cosmetics

Market Size 2025

Preface

Over a weekend brunch in our multicultural home—blending Western and Middle Eastern traditions—a group of Gen Z and Gen Alpha youth dissected fast fashion hauls. One asserted, “Shein tops shed microplastics after just five wears—why not organic cotton tees or recycled denim from deadstock?” Another added, “I want traceable athleisure from brands like Girlfriend Collective with scannable carbon footprints; Reformation’s upcycled dresses are chic, but where’s the mainstream zero-waste line?”

Their calls for circular resale (a **\$200B+** market), bamboo knits, and cruelty-free basics mirror USA/Europe youth rejecting **92 million tonnes** of annual waste (87% landfilled), while resonating with Middle Eastern slow fashion principles. **Gen-Z/ Alpha, projected to drive 40% of consumer spending by 2035**, are propelling sustainable fashion to a \$58B market—**shifting from fleeting trends to regenerative systems**.

This lively dialogue sparked our analysis: **Fashion’s linear model faces collapse** amid a \$560B circular economy opportunity. For global leaders navigating **EU Green Deal, California SB253, APAC sustainability frameworks, and Middle East circular economy visions**, this thought leadership piece maps the resilient path forward unpacking the transformational dynamics at play and their potential to impact **millions as consumers, producers, and value chain stakeholders** over the next decade.

Sajjeed Aslam

Partner – Sustainadility

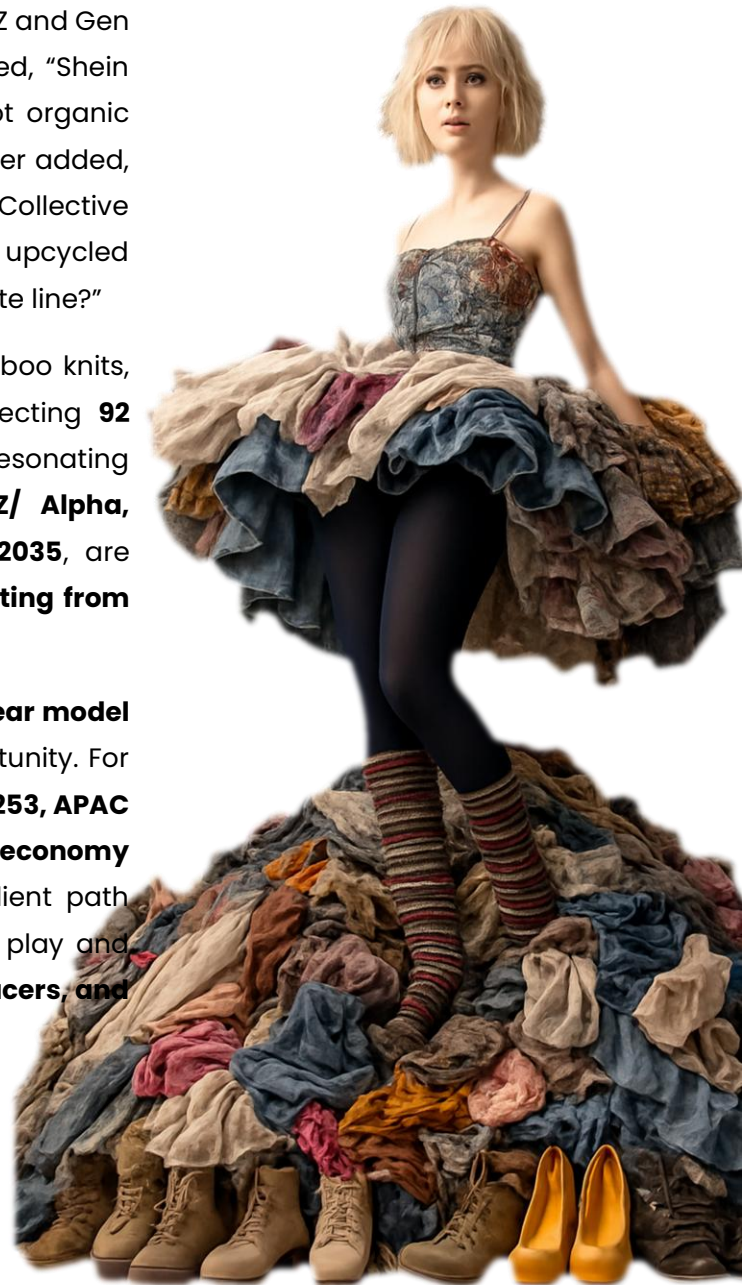


Table of Contents

Executive Summary 6

Macro Forces Reshaping the Fashion Industry 8

Global Market Shifts and Regional Dynamics 18

Halal Meets Sustainable: A Powerful Convergence 29

Category Deep Dive: Markets, Waste, and Opportunity 38

Redesigning Fashion Economics: Circular Affordability at Scale 46

Labor and Profitability: Who Wins and Who Risks Extinction? 55

Strategic Roadmap: Navigating the Fashion Reset 62

Fashion’s Defining Decade: Statistical Outlook (2025–2035) 72

Executive Summary

US\$3.2T current fashion industry value	US\$4.6T projected market by 2035	92–120M t annual fashion/textile waste	30–50% potential sustainable/halal share by 2035
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Fashion is entering a structural reset from volume-led fast fashion to value-led systems built around circularity, sustainability, halal compliance, traceability, and ethical production. The shift is no longer a communications exercise. It is becoming a commercial operating model shaped by regulation, consumer power, technology, climate risk, and value-chain economics. The industry is still growing, from about US\$3.2 trillion today toward roughly US\$4.6 trillion by 2035, but the source of competitive advantage is changing from scale and speed to credibility, durability, lower impact, and cultural relevance.

What is driving the reset

- **Regulation is raising the floor:** EU circularity, textile collection and EPR rules, California-style climate disclosure, APAC green taxonomies, Indonesia’s 2026 halal textile certification, and Middle East sustainability visions are turning emissions, waste, materials, and traceability into market-access issues.
- **Consumers are redefining value:** Gen Z and Gen Alpha are projected to shape 40% of spending power by 2035. Their demand for resale, cruelty-free basics, scannable product information, modest wear, and lower-impact materials is pushing ethics from niche preference to mainstream expectation.
- **The waste and emissions case is unavoidable:** Fashion produces 100 billion garments annually, generates an estimated 92–120 million tonnes of waste, sends about 87% to landfill, and contributes roughly 2–8% of global greenhouse-gas emissions. Polyester-heavy overproduction is intensifying both climate and microplastic risk.
- **Technology is becoming the trust layer:** AI-led demand forecasting, digital product passports, QR-enabled certification, blockchain traceability, virtual try-ons, and inventory optimisation can reduce overproduction, verify halal-sustainable claims, and support circular business models.

Regional and market implications

Asia Pacific is both the largest risk and the largest catalyst, with around 60% of global production, 41% of the sustainable fashion market, and nearly half of halal fashion demand. Europe is setting the regulatory benchmark through circularity, product design, waste collection, and procurement. The Middle East and Africa are becoming the halal and modest-

fashion frontier, supported by Gulf luxury demand, youth demographics, and ESG-linked diversification. North America is scaling through resale, rental, recommerce, RFID, recycling investment, and consumer activism. Latin America remains early-stage, but informality, diaspora links, e-commerce logistics, repair culture, and textile-export strengths create upside.

Strategic agenda for winners

- Design for durability, repairability, disassembly, recycled content, and halal-compatible material choices.
- Decarbonize manufacturing through renewable electricity, cleaner fibres, supplier engagement, and emissions data systems.
- Scale resale, rental, repair, take-back, product-as-a-service, and brand-owned recommerce to improve affordability and recurring value.
- Deploy digital product passports, AI inventory tools, blockchain verification, and consumer-facing QR transparency to convert trust into sales.
- Align with policy and social expectations through EPR readiness, labour safeguards, certification partnerships, and regional market adaptation.

Bottom line

The next decade will separate fashion companies that treat sustainability as reporting from those that redesign the economics of fashion. The strongest performers will not simply sell greener products. They will build integrated circular, ethical, halal-enabled, data-verified value chains that reduce waste, protect margins, satisfy regulators, and match the expectations of a younger, more values-driven global consumer base.

Macro Forces Reshaping the Fashion Industry

The fashion industry, valued at \$3.2 trillion across apparel, footwear, accessories, and beauty, is undergoing a significant shift from volume-driven fast fashion to value-focused sustainable models. This transformation is driven by regulatory mandates such as the EU Green Deal, USA SB253, APAC Green Taxonomies, and various national visions in the Middle East. It is also fueled by ethical consumerism, with Gen Z and Alpha generations accounting for 40% of global spending power, alongside advances in AI and digital technologies, and disruptions caused by trade and climate challenges.

The industry is expected to grow by 2.8%-4.1% in 2025, with sustainable fashion

estimated to be worth between \$4.0-\$9.0 billion, growing at a compound annual growth rate of 10%-23%. At the same time, halal fashion, valued at \$426.1 billion+ and growing at 5.0% annually toward \$571.4 billion, is gaining market prominence. This sustainable and halal convergence is challenging the fashion sector, which produces 100 billion garments yearly, generates 92-120 million tons of waste—87% of which goes to landfill—and contributes between 2%-8% of global greenhouse gas emissions, with a 7.5% spike in 2023 largely due to polyester use and overproduction. This evolving landscape signals the urgent need for systemic change toward circular and responsible practices.

Table 1: Mega Trends in the Fashion Industry by Region

Region	Trends	Drivers
Asia Pacific	Sustainable: \$1.6B (41% share) Halal: 49.7% market	Green factories in China/India + Muslim population boom (5.6% CAGR)
Europe	Sustainable: 23.1% share 44.9% eco-buying (France)	EU Green Deal and resale of apparels has now reached to 10% of new sales
Middle East & Africa	Halal: 30%+ dominance UAE market booming	Shariah compliance and modesty
North America	Sustainable: 10.3% yearly growth Resale surging	Gen Z (40% wants eco-friendly fashion) and AI based search capabilities
Latin America	Sustainable: 5-7% adoption	Cost savings and pilots of circular economy

The table highlights clear regional mega trends shaping the future of fashion. Asia Pacific leads in both sustainable fashion, valued at \$1.6 billion with a 41% market share, and halal fashion, commanding nearly 50% of the market. This dominance is driven by accelerated adoption of green manufacturing practices in China and India, supported by a rapidly growing Muslim population with a 5.6% annual growth rate.

Europe demonstrates strong sustainable consumer behavior, holding a 23.1% market share, with 44.9% of French consumers opting for eco-friendly products. This growth is supported by rigorous EU environmental regulations and an

expanding resale market that now accounts for 10% of apparel sales.

The Middle East and Africa dominate the halal segment, capturing over 30% of the market with the UAE leading significant market expansion rooted in religious and modesty-based demand.

North America shows a 10.3% sustainable fashion growth rate, bolstered by eco-conscious Gen Z consumers and innovations like AI-driven personalized shopping.

Lastly, Latin America is emerging with a 5-7% sustainable fashion adoption, driven by cost-saving initiatives and circular economy pilots.

For consumers, these trends translate to increased availability of ethical, sustainable, and culturally relevant fashion choices. Investors see a diverse set of high-growth opportunities—ranging from manufacturing hubs in Asia Pacific to regulatory-driven markets in Europe. Policymakers must focus on harmonizing regulations and incentivizing circularity to support this momentum across regions.

2.1 Fashion Market Growth & Sustainable/Halal Share Projections (2025-2035)

The overall fashion industry is projected to grow at a compound annual growth rate (CAGR) of about 4.0% over the next ten years, expanding from a current market size of approximately \$3.2 trillion to \$4.6 trillion by 2035. Each category within the industry is expected to grow between 4% and 6%. Within these segments, the shares of sustainable and halal fashion are increasing significantly. Notably, sustainable fashion is experiencing its highest demand shifts in non-apparel categories such as beauty and sportswear, where innovation and

Businesses face strategic imperatives to innovate and adopt sustainable and inclusive practices or risk losing market share to agile competitors capitalizing on these growing regional preferences. This insight underscores a global shift from wasteful volume models to value-driven, sustainable, and culturally attuned fashion ecosystems.

consumer interest in eco-friendly products are strongest. Meanwhile, the halal fashion market is broadening its influence across all categories, propelled by cultural and ethical considerations that increasingly shape consumer preferences globally. This trend indicates a clear convergence where sustainable and halal fashion sectors are becoming critical growth drivers within the larger fashion ecosystem, transforming market dynamics and highlighting new opportunities for consumers, investors, policymakers, and businesses alike.

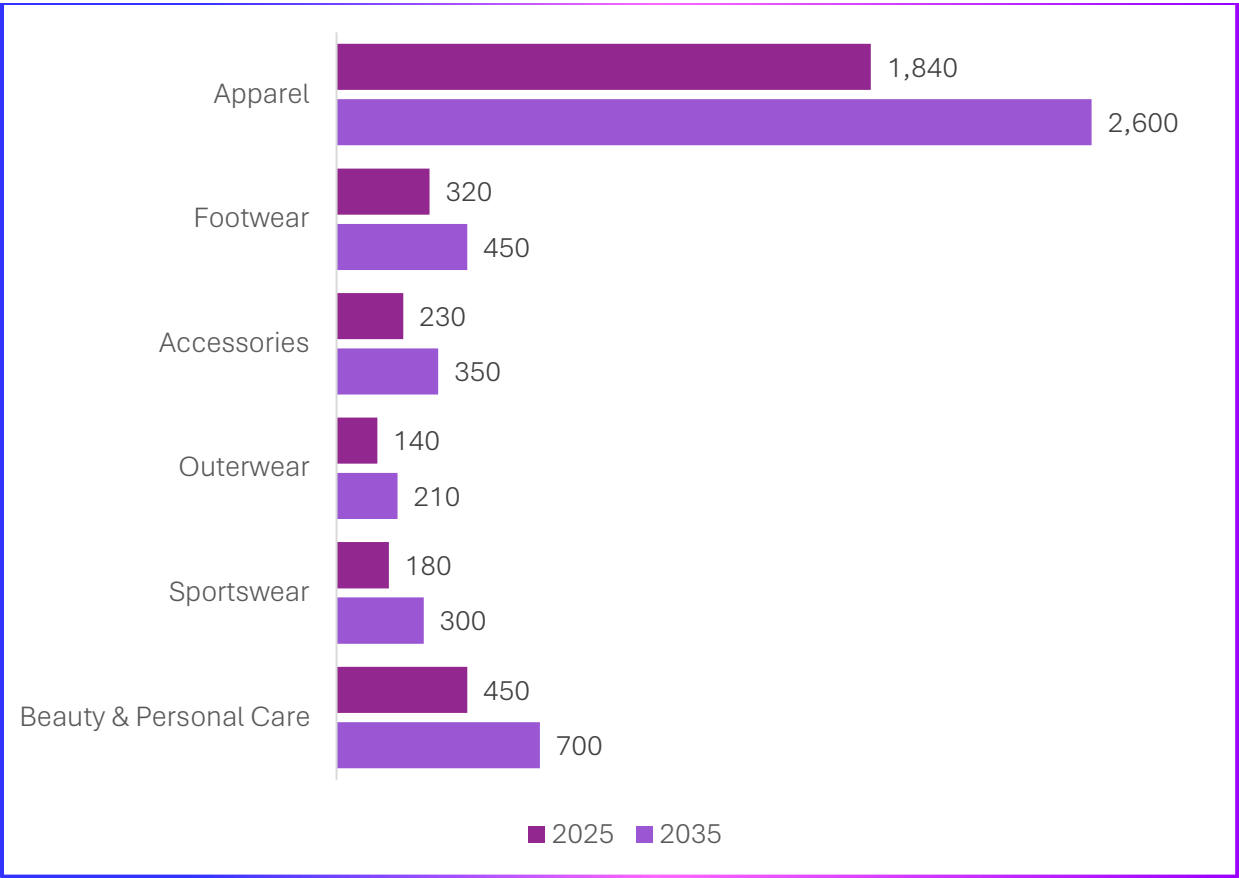


Figure 1: Fashion Industry Market Projections by Major Categories 2025-2035 (\$' billion)

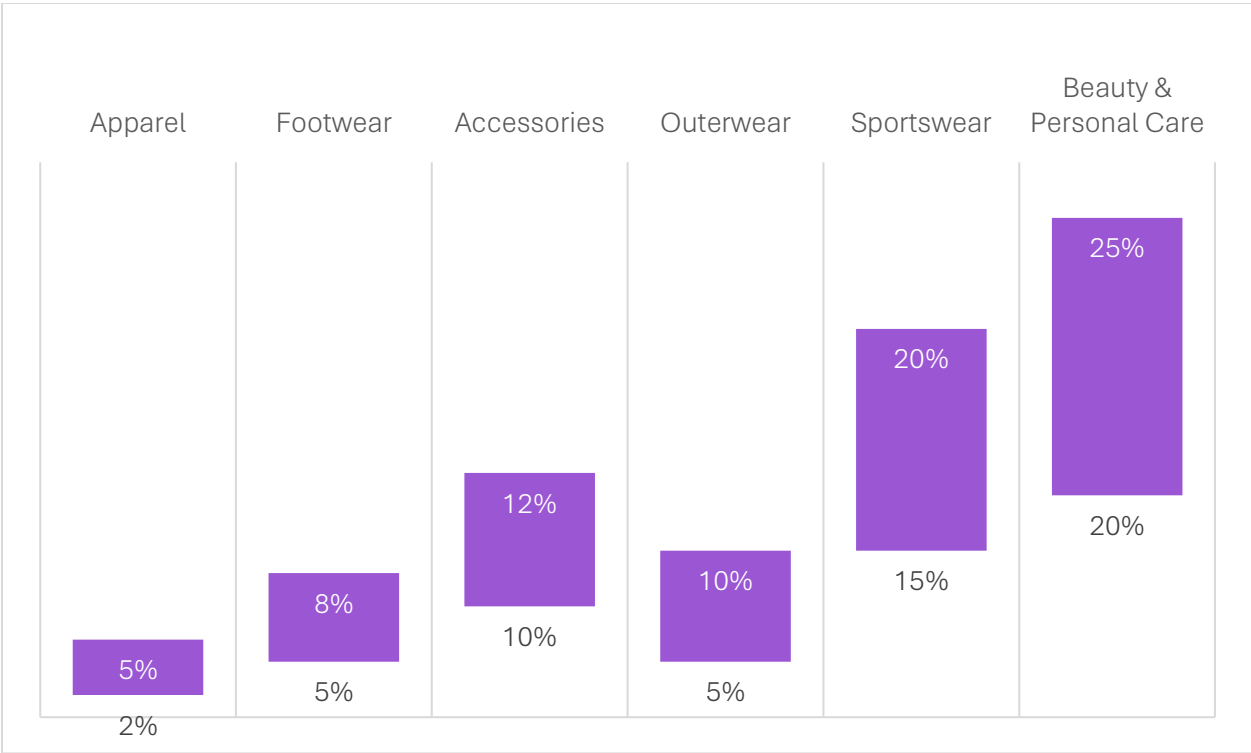


Figure 2: Sustainable Fashion Market Share Growth by Category 2035

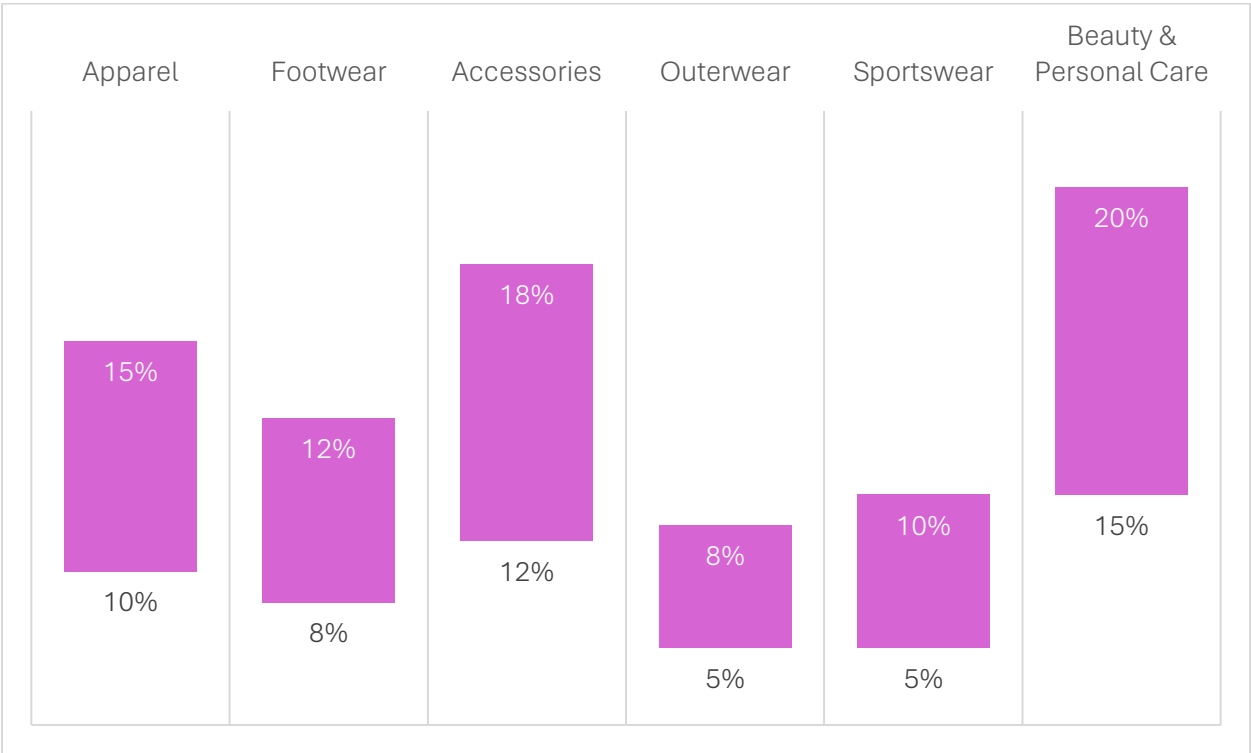


Figure 3: Halal Fashion Market Share Growth by Category 2035

2.2 Regional Market Dynamics & Adoption Accelerators

The adoption of sustainable and halal fashion products is poised to capture 30%-50% market share by 2035, driven by regulatory frameworks, technology, demographic growth, and corporate expansion. Key regulatory drivers include the EU Green Deal, green taxonomies, climate risk strategies, circular supply chains, zero-waste initiatives, and halal mandates in regions such as Indonesia and the UAE targeting 50% eco-Shariah compliance by 2030. Technology like AI try-on and blockchain traceability enhances conversion rates by 30% and aligns with 60% Gen Z demand. The Muslim population is expanding from 1.9 billion to 2.5 billion, expanding the halal market, especially for cruelty-free modest wear. Retailers like H&M and Adidas accelerate market penetration by scaling sustainable and halal product lines 20-30% faster. Incentives from carbon taxes and ESG preferences support low-emission halal products in a \$152 billion cosmetics market growing at an 11.1% CAGR.

Regionally, Asia Pacific leads with 41% sustainable and 49.7% halal market shares today, expected to grow to 40%-60% by 2035, driven by young Muslim demographics, supportive policies, and technology-enabled e-commerce growth. The Middle East and Africa, with current halal shares over 30%, could reach 50%-

Key Insights

- *EU, Indonesia, and UAE regulations is building trust and accelerating sustainable and halal adoption.*
- *AI and blockchain boosting Gen Z/Alpha engagement via transparency.*
- *Asia/Middle East Muslim youth and middle-class growth fueling eco-halal demand.*
- *Global brands like H&M/Adidas have proven commercial viability.*
- *Carbon taxes/ESG align low-emission halal with ethical finance.*

70% by 2035 fueled by government halal hubs and ESG investment from oil wealth. Europe, North America, and Latin America currently hold smaller shares but have strong potential growth catalyzed by regulations, youth-driven ethical demand, and diaspora influence.

Demographically, youth bulges, Muslim population growth, and middle-class expansion worldwide will lift sustainable and halal fashion and cosmetics market shares from 8%-15% today to 30%-50% by 2035. Asia Pacific—with 1.6 billion Muslims

(32% of population) and a growing 4.5 billion middle class—will be the primary market driver, complemented by AI shopping trends and enabling policies. The Middle East’s youthful population and wealth underwrite a booming \$152 billion halal cosmetics sector, while Europe, North America, and Latin America also see steady growth based on rising Muslim minorities, ethical youth spending, and circular economy models.

The data indicates a transformative market shift, with sustainable and halal products becoming dominant in global fashion and beauty by 2035, driven by converging demographic, regulatory, technological, and corporate forces that blend Islamic principles with leading ecological and ethical trend

Table 2: Potential Accelerators for Adoption of Sustainable and Halal Fashion Product by Region

Region	Current Share (2025)	Potential Accelerators	Projected Dominant Share by 2035	Fastest Driver
Asia Pacific	Sustainable: 41.0% Halal: 49.7%	Halal mandates and green production; AI based e-commerce	40%-60% (leader)	Muslim youth, policy level interventions
Middle East & Africa	Halal: 30%+	UAE/KSA Vision 2030; cruelty-free cosmetics	50%-70%	Government halal hubs and ESG compliances in oil based economies
Europe	Sustainable: 23.1%	EU regulations and modest wears; resale 10%→30%	30%-45%	Regulations and non-Muslim modest wears

North America	Sustainable: 10.3%	Gen Z influencers; halal beauty	25%-40%	Social media and ethical investing
Latin America	Sustainable: 5%-7%	Emerging adoption of circular economy and halal diaspora	15%-25%	Cost-driven eco-friendly consumption and modest imports

Demographic megatrends represent a transformative force reshaping the fashion sector, propelling sustainable and halal apparel toward mainstream dominance with a projected 30–50% global market share by 2035. The Muslim population’s expansion from 1.9 billion to 2.5 billion forms a powerful consumer engine, most notably in Asia Pacific where it rises to 1.6 billion individuals comprising 32% of a 5 billion population, and in the Middle East and Africa where it holds a 65% share within a burgeoning 2 billion population base, all seeking modest attire that fuses Islamic values with environmental responsibility.

This shift gains momentum from youthful profiles across regions. In the Middle East and Africa, a median age of 20–22 years alongside over 50% youth and a middle class doubling to 800 million creates avid demand for tech-enabled, cruelty-free modest fashion, amplified by oil-funded ESG initiatives like the \$152 billion halal cosmetics surge. Asia Pacific mirrors this with a steady 40% Gen Z and Alpha share

fueling a \$740 billion market through China’s 4.5% production CAGR, Indonesia’s halal mandates, and AI-powered shopping innovations.

Mature economies are also realigning. Europe’s population edges from 750 million to 720 million as its Muslim share climbs to 10%, driving 44.9% eco-fashion uptake and resale growth from 10% to 30%. North America’s 600–650 million residents see Gen Z and Alpha reach 40% with over \$500 billion in ethical spending via social discovery platforms, while Latin America’s youth bulge and 450 million middle class harness rising incomes and diaspora networks to advance circular and halal imports.

Strategic leaders in fashion must seize this convergence of population scale, youth dynamism, affluence via a 3–5 billion middle-class swell, and values alignment—it is the defining growth paradigm for enduring, responsible prosperity.

Table 3: Regional Demographics and Fashion Impacts

Region	2025 Profile	2035 Projection	Fashion Impact
Asia Pacific	Population: 4.7B; Muslims: 1.2B (25%); Median Age: 32; Middle Class: 3B; Gen Z/Alpha: 40%	Population: 5B; Muslims: 1.6B (32%); Median Age: 36; Middle Class: 4.5B; Gen Z/Alpha: 40% (\$740B market)	China's 4.5% CAGR in production; Indonesia's halal policies; youth-driven AI shopping trends boost sustainable modestwear adoption .
Middle East & Africa	Population: 1.5B; Muslims: 1B (67%); Median Age: 20; Middle Class: 400M; Youth: 50%+	Population: 2B; Muslims: 1.3B (65%); Median Age: 22; Middle Class: 800M; Youth surge	UAE/Saudi youth demographics plus oil wealth fuel \$152B halal cosmetics and ethical fashion growth .
Europe	Population: 750M; Muslims: 50M (7%); Median Age: 43; Middle Class: 500M; Gen Z: 20%	Population: 720M; Muslims: 70M (10%); Median Age: 46; Middle Class: stable; Gen Alpha rising	44.9% eco-fashion penetration; resale market expands from 10% to 30%, aligning with regulations and modest trends .
North America	Population: 600M; Muslims: 5M (1%); Median Age: 39; Middle Class: 200M; Gen Z/Alpha: 30%	Population: 650M; Muslims: 8M (1.2%); Median Age: 41; Middle Class: 220M; Gen Z/Alpha: 40% (\$500B+ market)	1.5x growth in social media discovery; 7% of youth spending on ethical products drives halal-sustainable lines .
Latin America	Population: 670M; Muslims: 6M (1%); Median Age: 31; Middle Class: 300M; Gen Z: 25%	Population: 700M; Muslims: 10M (1.5%); Median Age: 34; Middle Class: 450M; Youth bulge	Rising incomes and Muslim diaspora enhance circular economy and halal

Region	2025 Profile	2035 Projection	Fashion Impact
			imports, spurring modest fashion uptake .

2.3 Fashion Market Growth & Sustainable/Halal Share Projections (2025–2035)

Table 4: Risk Assessment for Businesses and Investors by Category

Category	RAG Status	Exposure Level & Reasons	Sustainable & Halal Convergence Impact
Apparel	● Amber	High volume leads to significant waste; sustainable share is modest (2–5%) while halal share is 10–15%	Largest segment, high risk if slow to adopt circular and halal shifts; transformation entails high costs
Footwear	● Yellow	Moderate exposure with 5–8% sustainable and 8–12% halal shares; focus on eco-material innovation	Opportunities to lead material innovation; risk for late adopters
Accessories	● Green	Lower volume but higher margins; sustainable at 10%, halal at 12–18% growth; strong demand for bags/jewelry	Well positioned with growth in eco-luxury and halal modest accessories
Outerwear	● Yellow	Moderate sustainable (5–10%) and halal (5–8%) shares; demand for sustainable insulation growing	Innovation-driven; responsive segment for eco-friendly solutions
Sportswear	● Green	Fastest growing sustainable share (15–20%) with 5–10% halal penetration; athleisure and modest activewear	ESG innovation hub; aligns with health and modesty consumer trends
Beauty & Personal Care	● Red	Highest sustainable (20–25%) and halal (15–20%) shares; booming cosmetics market	Complex certification and supply chain challenges; urgent need for transformation

Global Market Shifts and Regional Dynamics

While the macro forces are global, their impacts are playing out differently across regions. The fashion landscape is fragmenting regionally, with each area of the world charting its own path toward sustainability and ethical models. Crucially, the Asia-Pacific region – by far the largest producer and a huge consumer base – is emerging as both the biggest challenge and the biggest catalyst for change. Europe is leveraging regulation to lead on circularity. The Middle East and Africa (especially the Gulf states) are asserting themselves as the heart of the halal/modest fashion movement. North America is driven by shifting consumer preferences and tech innovation. Latin America, while lagging in adoption, shows potential through niche experiments and a young population. We examine these regional dynamics below:

3.1. Asia Pacific: The Relentless Engine of Change

Asia Pacific (APAC) sits at the epicenter of fashion's transformation. This region manufactures the majority of the world's clothing and also contains the largest number of fashion consumers, including a rapidly growing middle class. By 2025, APAC accounted for approximately 60% of global textile and apparel production – essentially making it the garment factory

of the world. This dominance also means APAC is the source of a huge portion of fashion's environmental footprint (water usage, emissions, waste) and thus *must* be part of the solution. Encouragingly, there are signs that APAC is embracing change.

Key countries are pushing simultaneous green and halal initiatives:

- **China**, for instance, has begun greening its textile factories (incentivizing energy efficiency and pollution control) and is investing heavily in recycling technologies.
- **India** is modernizing its vast textile sector with sustainability standards and just transition programs for workers.
- **Indonesia**, with the world's largest Muslim population, is marrying its "*halal economy*" goals with sustainability – e.g. promoting eco-friendly modest fashion designers and banning harmful chemicals in textile production.

Region-wide, there's also a leap toward AI-driven supply chain optimization, from predictive analytics for demand (to reduce overproduction) to blockchain traceability ensuring materials meet halal and organic criteria.

Crucially, the market for sustainable and halal fashion in Asia is booming off a low base. In 2024, sustainable fashion sales in APAC reached an estimated \$1.6 billion, accounting for 41% of the global sustainable fashion market. Halal fashion (e.g. Islamic modest wear) now commands nearly 50% of APAC's fashion

market by value– reflecting enormous local demand.

These figures include the spending of APAC's 1.2 billion Muslim consumers (as of 2025) alongside non-Muslim consumers who also buy local modest/sustainable brands. By 2035, the Muslim population in Asia is projected to grow to ~1.6 billion (32% of APAC), further enlarging the addressable halal market. Asia's rising middle class (expected to expand from ~3 billion in 2025 to 4.5 billion by 2035) is also spending more on quality and values-based products.

All these factors put APAC on course to *lead global growth* in the new fashion sectors. Analysts predict Asia-Pacific will have the fastest uptake of sustainable/halal fashion, potentially a 10–20% CAGR for these segments – outpacing Europe's ~9% and North America's ~10% growth. By 2035, Asia-Pacific could see 40–60% of its fashion sales be sustainable or halal-compliant, making it the world leader in absolute terms.

Key drivers in APAC include strong government backing and tech innovation.

- China's latest Five-Year Plan includes green textile industry guidelines, and major Chinese manufacturers are adopting *closed-loop recycling* (one Chinese factory recently achieved 100% recycled polyester inputs).
- Indonesia not only hosts Indonesia Modest Fashion Week but has programs training designers in both Islamic and sustainable principles.

- Bangladesh and Vietnam, while traditionally fast-fashion hubs, are seeing some factories upgrade to LEED-certified green facilities – often at the behest of Western clients but increasingly for competitive advantage in an eco-conscious world.
- The AI and digital revolution is also felt: companies like Alibaba are enabling on-demand production based on real-time consumer data, reducing wasteful overproduction. This digital agility helps APAC producers respond swiftly to regulatory changes or shifts in consumer sentiment.

So, Asia Pacific is a paradoxical leader: it is *both* the largest source of fashion's problems (mass production, pollution, labor issues) *and* an essential source of solutions (scale of innovation, new consumer bases). With 60% of global production and the bulk of future consumers, APAC will largely determine whether the industry can meet sustainability and ethical goals. Current trends are hopeful – APAC is not resisting the shift but rather reinventing itself as the powerhouse of sustainable, halal-friendly fashion for the 21st century.

3.2. Europe: The Regulatory Trailblazer

Europe's role as the world's laboratory for sustainable fashion policy is increasingly defined by mandatory systems, especially around waste and collection. From 2025, EU Member States had separate collection systems for textiles, and the scale of the

gap is already clear: the EU generates about 12 kg of textile waste per person, yet only about 4.4 kg, roughly 30%, was collected separately for reuse or recycling. Europe has also been exporting large volumes of used textiles, with exports tripling from just over 550,000 tonnes in 2000 to almost 1.7 million tonnes in 2019, which adds pressure to build credible domestic reuse and recycling capacity.

This regulatory ambition sits on top of a very large European textiles economy, which is why fashion has become a practical test case for circular business models. In 2023, the EU textile and clothing sector recorded about €170 billion in turnover, employed about 1.3 million people, and comprised roughly 197,000 companies. Europe is also a major exporter: in 2022 the EU shipped around 4.0 million tonnes of finished textiles worth about €73 billion, meaning European standards can quickly influence product specifications and supplier practices far beyond Europe.

European policy momentum is also driven by quantified consumption and environmental impact indicators that make the case for tightening the rules. In 2020, Europeans discarded about 5.2 million tonnes of clothing and footwear, around 12 kg per person. The policy narrative commonly links this to broader global footprint figures, including claims that textiles account for about 10% of global CO₂ emissions, about 20% of global wastewater, and about 35% of ocean microplastics associated with textile shedding and washing, reinforcing why durability, eco-design, and circularity are

becoming central expectations for the sector.

At the same time, Europe is treating circularity as something that must be measurable at product level and enforceable through market structures. EU textiles are described as having less than 1% circular material use, and about 78% of textile products placed on the EU market are said to require disassembly for recycling, which turns design decisions into a core barrier and opportunity. The EU is also generating about 12.6 million tonnes of textile waste each year and imports about 73% of the clothing it consumes, so policy has strong upstream leverage. On consumer-facing credibility, the EU Ecolabel reports 109,096 certified products and services supported by 3,384 licences, including 11,023 textile products, with growth of 7% in products and services and 4% in licences since March 2025.

Finally, Europe's circular shift is being reinforced by demand, business-model evidence, and market scaling, all of which supports the idea that Europe will keep raising the bar. Public procurement in the EU is about 14% of GDP, roughly €2,000 billion in purchasing power, which can mainstream requirements like durability, repairability, recycled content, and transparency. A 2025 methodology estimate suggests repair has an 82.2% displacement rate and resale has a 64.6% displacement rate, alongside example savings above 7.5 kg CO₂e for repairing one cotton T-shirt instead of buying new and above 30 kg CO₂e for buying preloved jeans instead of new.

On materials, global fibre production reached about 132 million tonnes in 2024, with polyester at 59% of output and 88% of that polyester fossil-based; recycled polyester rose to about 9.3 Mt in 2024 but represented about 12% of polyester, recycled fibres overall were about 7.6% of the market, and textile-to-textile recycling remained below 1%. Europe's resale ecosystem is scaling commercially as well, with a leading platform reporting €813.4 million in 2024 revenue, 36% year-on-year growth, €76.7 million net profit up 330%, €158.9 million adjusted EBITDA, a €5 billion valuation in October 2024, and more than 2,200 employees. Consumer intent aligns with this trajectory too, with 74% saying they want to wear clothing more sustainably by extending lifespan, 78% saying cost makes sustainable choices difficult, 66% believing they are making more sustainable choices, and 71% aspiring to shop more sustainably.

3.3. Middle East & Africa: The Halal Frontier

The 2025 global modest-fashion and halal clothing industry illustrates a fast-growing apparel segment that is heavily concentrated in the Middle East & North Africa (MENA) and parts of sub-Saharan Africa. A 2025 industry report notes that the global Islamic clothing market will grow from US\$79.61 billion in 2024 to US\$84.72 billion in 2025, reflecting a 6.4 % compound growth rate. An independent analysis estimates that the market size for Islamic clothing in 2025 is about US\$8.4 billion, with forecasts of US\$11.82 billion by 2032. The

MENA region commands a disproportionate share: an aggregated survey of modest-fashion revenues released in late 2025 found that the MENA region generates roughly 35 % of global modest-fashion revenue, while Nigeria leads the African continent with spending exceeding US\$10 billion. Nigeria's growing influence shows how West African hubs such as Lagos and Dakar are blending modest silhouettes with local colour, fueling both domestic demand and exportable styles. In East Africa, fashion capitals such as Nairobi and Addis Ababa have embraced modest-fashion weeks and social-commerce platforms to showcase hijabs, abayas and kanga-inspired garments. The same late-2025 survey notes that Turkey remains the world's largest consumer market for modest fashion, yet the UAE's modest fashion spend of US\$23 billion has turned Gulf cities into launch pads for African designers seeking regional distribution. As a result, the Middle East and Africa together represent the frontier of halal fashion, already accounting for roughly one-third of global revenue and expected to expand as young, digital-native consumers drive demand.

3.3.1 Consumer behaviour, sustainability and digital innovation

Modest fashion's growth is underpinned by shifting consumer behaviour and the integration of sustainability and technology. A 2025 market-analysis dataset shows that 57 % of consumers within modest-wear categories prefer Islamic apparel because it blends tradition with contemporary design. More than 60 %

of buyers are choosing Islamic clothing that merges traditional modest-wear with modern aesthetics, such as tailored abayas and athleisure-style hijabs.

Sustainability is no longer a niche concern: around 46 % of customers seek eco-friendly and ethically sourced Islamic clothing, and nearly 38 % of retailers are adopting new e-commerce technologies, including virtual fitting rooms and AI-driven recommendations. Youthful consumers are particularly influential—over 48 % of purchases come from younger demographics who view modest dress as a form of identity expression.

The broader digital ecosystem reinforces these trends: in the Gulf Cooperation Council (GCC) countries, social-media penetration reaches 82 % in Saudi Arabia and climbed from 9.73 million users in the UAE in 2020 to 10.73 million in 2023, a 10.3 % rise. A 2023 Statista survey cited in a 2024 analysis found that 40 % of millennials and Gen Z consumers in the GCC discover new brands through social media.

These numbers demonstrate how digital platforms are crucial for modest-fashion

brands and why African and Middle Eastern entrepreneurs use Instagram, TikTok and ecommerce marketplaces to engage global audiences. Sustainability is also shaping supply chains; for example, Pakistan's textile industry supplies 15 % of the raw materials used in global modest-fashion production, prompting designers in the Gulf and North Africa to invest in organic silk, ethically sourced cotton and recycled polyester for high-end abayas and jalabiyas.

3.3.2 Luxury modest wear and the Gulf's economic clout

The luxury segment forms a significant pillar of the halal fashion frontier. According to a 2026-released report by P&S Intelligence, the GCC luxury goods market is projected to reach US\$17.2 billion in revenue in 2025, rising at a compound annual growth rate of about 3.7 % to US\$22.1 billion by 2032. The GCC's younger consumers are particularly voracious: Millennials in the region purchase an average of 14 luxury items per year, while Gen Z consumers buy around 16 items, surpassing older generations.

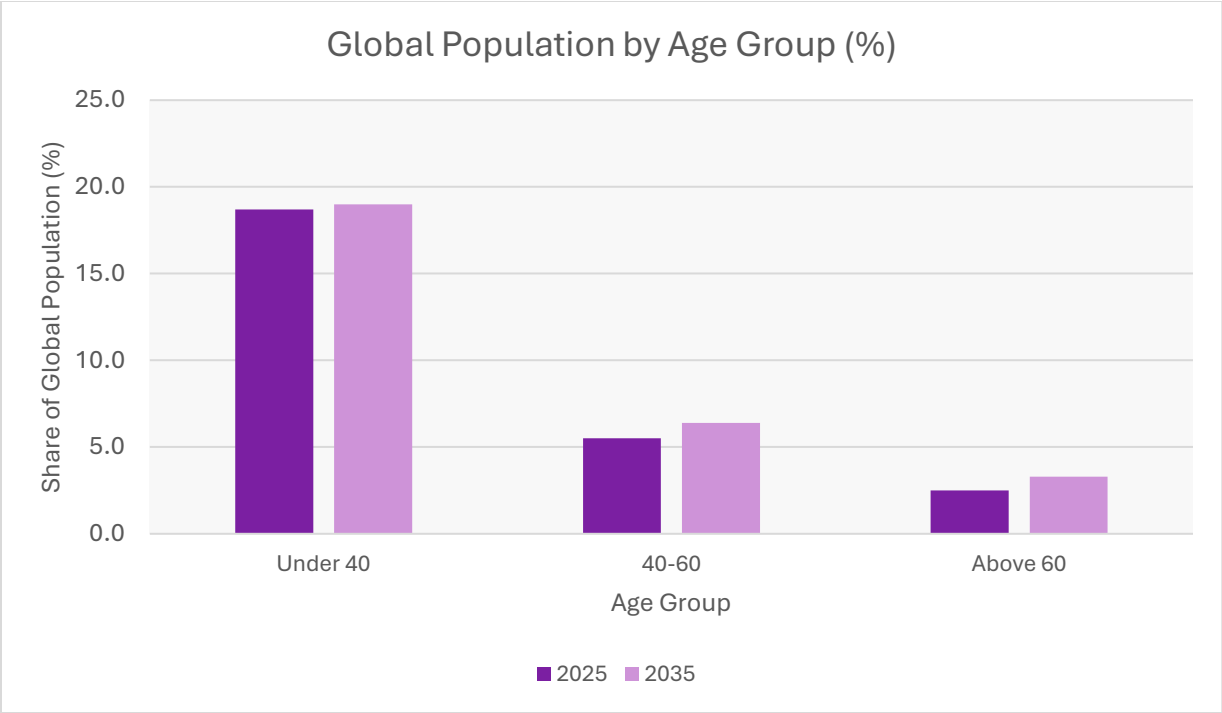


Figure 4: Halal Economy Spend by Sector: 2023 Vs 2028 Forecast (CAGR Shown per Sector)

These cohorts also exhibit strong ethical values—surveys show that approximately 73 % of Millennials and 64 % of Gen Z in the GCC are willing to pay more for sustainably made luxury products, and over 60 % express a readiness to invest in quality pieces that last. Such data reveal why Gulf fashion houses and international brands are launching eco-friendly collections, including organic-silk abayas, recycled-polyester jalabiyas and ethically tanned leather handbags. The region’s retail infrastructure—tax-free shopping, duty-free outlets and high-end malls—helps maintain some of the world’s highest per-capita luxury spending, while events like Modest Fashion Week in Dubai and Doha attract designers from Egypt, Nigeria

and Senegal, creating cross-continental collaborations.

Beyond apparel, the beauty sector underscores the purchasing power of MENA consumers; the Middle East and North Africa’s beauty market, valued at US\$46 billion in 2023, is forecast to expand to US\$60 billion by 2025, highlighting the demand for complementary halal cosmetics.

3.3.3 Africa’s contribution and regional interplay

Sub-Saharan Africa is often overlooked in discussions of halal fashion, yet it plays a growing role. The same 2025 modest-fashion survey reveals that Nigeria is the leading modest-fashion market in Africa, with spending exceeding US\$10 billion.

Senegal and Côte d'Ivoire have developed thriving modest-wear industries, blending West African prints with Islamic silhouettes, while North African nations such as Egypt—home to 109 million people—sustain large domestic markets for abayas and hijabs.

A 2025 report from the Business Research Company notes that the Middle East was the largest region in the global Islamic clothing market in 2024, and it expects the market to grow to US\$109.43 billion by 2029. The ReAnIn analysis further records that the Islamic clothing market (base year 2025) is estimated at US\$8.4 billion and identifies the market as moderately concentrated with several regional players. Consumer data from the same report highlight that 57 % of modest-wear shoppers prefer Islamic apparel, while 46 % prioritise eco-friendly options—a trend that resonates with African designers using organic cotton and locally woven fabrics.

Importantly, Nigeria's and Kenya's burgeoning e-commerce ecosystems allow small labels to reach Gulf and European customers, showing how the African halal-fashion movement is both a cultural and economic bridge. As the global Islamic fashion industry moves towards a US\$84.72 billion market in 2025, the Middle East, North Africa and sub-Saharan Africa will continue to serve as incubators for innovation, sustainability and cross-cultural design, securing their place at the centre of the halal fashion frontier.

3.4 North America: Consumer-Driven Change

North America's fashion shift is still mostly bottom up, led by consumers and startups rather than comprehensive federal mandates. In the United States, resale is scaling quickly, with projections that the U.S. secondhand apparel market could reach \$74 billion by 2029, and online resale alone could reach \$40 billion by 2029. On the demand side, consumers are expected to allocate about 34% of their apparel budget to secondhand in the next 12 months, and Gen Z plus Millennials plan an even higher 46%, which signals that circular buying is becoming a default choice for younger shoppers.

That "used-first" behavior shows up in broader recommerce participation too. In 2025, 93% of Americans reported buying used, and 54% reported selling items, highlighting how recommerce has become a mainstream consumer habit rather than a niche sustainability choice. Looking further out, the recommerce market is projected to reach \$306.5 billion by 2030, reinforcing the point that consumer adoption is expanding the market well ahead of most fashion-specific regulation in North America.

At the same time, rental, subscription, and other access-based models are gaining measurable scale, driven by platform execution and customer retention. Rent the Runway reported Q3 FY2025 revenue of \$87.6 million, up 15.4% year over year, and ended the quarter with 148,916 active subscribers, up 12.4% year over year, alongside 147,645 average active

subscribers, up 12.9%. Nuuly’s growth adds another data-backed signal: it reached 300,000 active subscribers, its subscription revenue grew 56%, and it posted an operating profit of \$13.0 million after a

prior-year loss, suggesting that subscription fashion can move beyond growth into profitability.

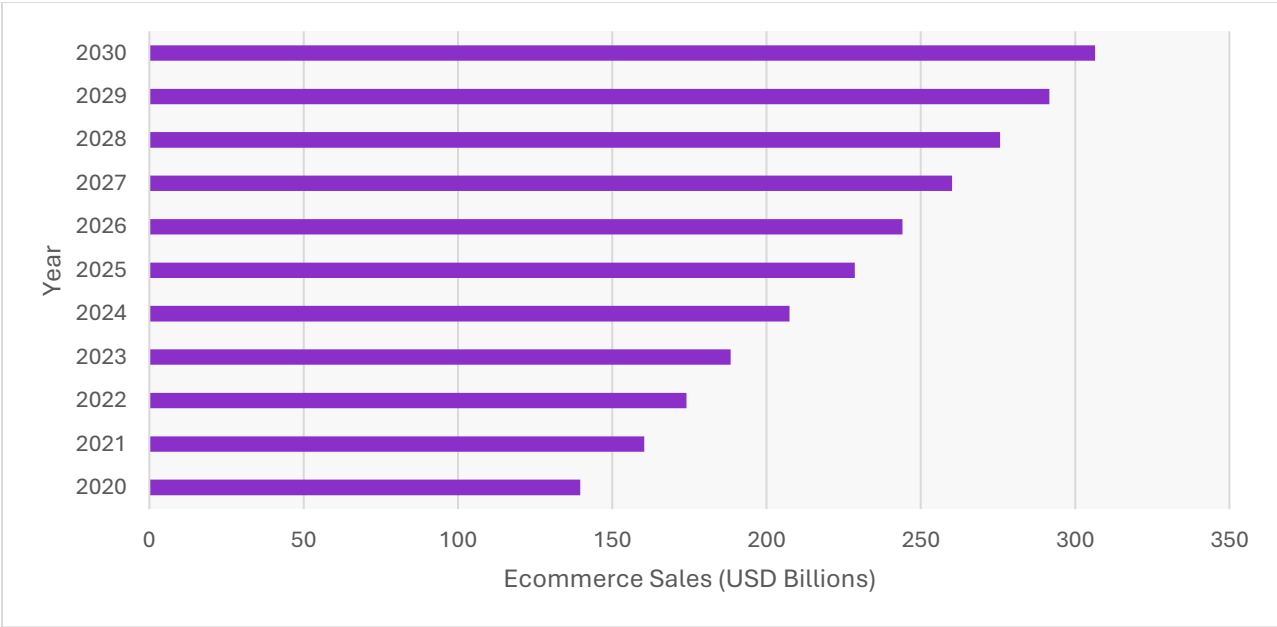


Figure 5: U.S. Recommerce Market Projected to hit \$306.5 billion by 2030

Canada reflects a similar consumer-led circular trajectory, even if the market is smaller in absolute terms. Canada’s recommerce market was sized at \$4.72 billion in 2024 and is projected to reach \$6.66 billion by 2029, implying roughly 7.1% compound annual growth. Across the region, technology is increasingly woven into sustainability and circularity, from digital resale infrastructure to industrial and supply-chain technologies that reduce waste and enable traceability.

The tech and infrastructure layer is also being pulled by scale and economics, especially around recycling and supply-

chain digitization. A major recycling signal is Syre’s \$100 million raise, its target of 3 million metric tons per year by 2032, and its first plant planned at about 10,000 tons per year capacity, alongside context that Gap uses roughly 10,000 tons of polyester annually and that Syre previously signed a deal with H&M valued at \$600 million. RFID is another large-scale enabler, with estimates that retail apparel will require over 31 billion RFID tags in 2025 and that RFID still represents only about 40% of the addressable market, implying substantial runway for inventory accuracy and circular operations.

The waste problem remains the backdrop that makes these models urgent: the U.S. generates about 15.4 million tonnes of textile waste annually, only 15% is recovered, and 85% is landfilled or incinerated; analysis suggests 56% of post-consumer textiles could be suitable for fiber-to-fiber recycling, with a potential \$1.5 billion annual market value increase.

Policy is still catching up but is becoming more concrete in patches: proposals like New York's Fashion Act include exemptions such as companies selling only used clothing and certain multi-brand retailers unless private-label sales exceed \$100 million, with potential penalties up to \$15,000 per violation per day, while Washington's HB 1107 references penalties up to \$5,000 for a first violation and \$10,000 for repeat violations.

By early 2025, four states including California, New York, Massachusetts, and Washington had versions of a Fashion Act approach aimed at companies with \$100 million or more in revenue, in a context where fashion is estimated to contribute up to 8% of global greenhouse gas emissions, California textile waste was cited at 1.2 million tons in 2021, and California's textile EPR framework has been described as allowing fines up to \$50,000 per day by 2030 for non-compliance.

All told, North America's journey is characterized by market innovation and consumer activism. By 2035, a realistic scenario is North America reaching 25–40% sustainable/ethical market share. The winners are likely to be those companies that tapped into the *tech-enabled circular economy* – whether it's an incumbent like

Nike launching a subscription sneaker service or a startup that becomes the “Netflix of fashion rentals”. Social media will continue to amplify accountability: brands caught polluting or mistreating workers face trending boycotts, whereas those doing good get loyal followings. The U.S. has historically been a land of retail innovation, and in sustainable fashion that pattern holds – expect more creative business models to emerge from this region that could be scaled globally.

3.5 Latin America: The Underdog with Upside

Latin America's sustainability story in fashion is strongly shaped by economic necessity and the scale of informality. In the first half of 2025, informal employment accounted for 46.7 percent of total employment in Latin America and the Caribbean, with women at 47.5 percent and men at 46.2 percent. That labor structure makes circular behavior practical and widespread because repair, resale, and reuse often operate through informal micro-businesses and household networks rather than formal retail channels.

Diaspora influence adds both capital and cultural pull. Remittances to Latin America and the Caribbean are projected at US\$174.4 billion in 2025, up 3.0 percent from 2024, with Mexico at US\$67.8 billion and Central America at US\$55.1 billion. Alongside money flows, diaspora scale matters: the U.S. Latino economy is estimated at US\$4.1 trillion in 2025, with consumption around US\$2.7 trillion, and Latinos contributing 30.6 percent of U.S.

GDP growth since 2019. This combination helps transmit preferences and trends from the U.S. and Europe back into Latin American markets through families, media, and cross-border buying.

Commercial circularity is also moving from informal practice toward investable markets. In 2025, the Latin America recommerce market is valued at roughly US\$11.4 billion, with year-on-year growth of about 15.5 percent and a projection of around US\$18.6 billion by 2029. The enabling infrastructure is scaling too: MercadoLibre planned 34 billion reais, or about US\$5.8 billion, of investment in Brazil in 2025, which is a 47.8 percent increase versus the prior year, and expects to create about 14,000 jobs while surpassing 50,000 employees in the country by year end. As logistics and payments deepen, resale platforms, repair services, and reverse logistics pilots can expand faster and more reliably.

Policy and regulation are emerging as catalysts in specific markets, turning visible waste problems into circular incentives. Chile reports textile consumption at 32 kg per person, associated with more than 572,000 tons of textile waste, and has moved to prioritize textiles under its recycling law framework. Mexico is quantifying the challenge as well: an initiative dated October 21, 2025, cites Mexico City generating around 182 tons per day of textile waste, with only about 0.2 percent to 5 percent recycled, and links solutions to labeling and consumer information approaches. These are signals

that formal compliance and reporting expectations can develop alongside the already existing informal circular ecosystem.

At the same time, Latin America has input and export strengths that can support a larger role in sustainable fashion value chains if governance and standards keep pace. Peru's non-traditional textile exports reached about US\$1.435 billion in January to October 2025, up 6.6 percent year on year, indicating a manufacturing base that can participate in higher-spec segments where traceability and sustainability requirements are rising.

Brazil's cotton exports are forecast at 14.1 million bales, or 3.1 million metric tons, in 2025/26, with 2.53 million bales shipped in August to October 2025, and shipments to India up about 60 percent and to Bangladesh up about 40 percent compared to a year earlier.

Finally, the region's urban waste context raises both urgency and opportunity: more than 80 percent of the population lives in cities, eight of the world's largest dumpsites are in the region, and about 60 percent of waste is deposited in inadequately controlled landfills, while circular economy pathways are associated with potential resource consumption reductions of up to 50 percent in cities and an estimated net 4.8 million jobs by 2030. Taken together, these signals explain why Latin America can credibly grow from the fringe into a solid secondary market for circular fashion over the 2030s.

The table below provides a snapshot of key regional metrics and drivers as of 2025, illustrating how each region is contributing to fashion's transformation:

Table 5: Snapshot of key regional metrics and drivers as of 2025

Region	How the region is shaping the shift	Core drivers and signals
Asia Pacific (APAC)	Largest producer and fastest-scaling consumer base, making it both the main risk and the main catalyst.	~60% of global production; green + halal push (China, India, Indonesia); AI/blockchain traceability; booming halal demand; 10–20% segment CAGR; 40–60% sustainable/halal share scenario by 2035.
Europe	Regulation-led circularity, turning design, waste, and collection into enforceable market rules.	2025 separate textile collection; low collection and <1% circular material use; large sector scale; eco-design/disassembly focus; procurement leverage; resale and repair scaling; consumer intent rising despite cost barriers.
Middle East & Africa	Heart of halal/modest fashion, increasingly linking halal with ethical and sustainability claims, led by Gulf hubs.	Halal economy and modest fashion growth; GCC luxury and tourism-driven demand; rising sustainability sentiment; supplier ESG scorecards; GCC secondhand market scaling; Africa demand backed by large Muslim populations.
North America	Consumer and startup driven, with tech-enabled resale, rental, and recycling infrastructure outpacing regulation.	Resale/recommerce mainstreaming; strong Gen Z/Millennial secondhand budgets; rental/subscription growth; RFID and recycling investment; high textile waste baseline; state-level policy proposals expanding.
Latin America	Informal circularity is widespread; formal adoption is slower but niches, diaspora, and logistics investment create upside.	High informality supports repair/resale; remittances and diaspora trend transfer; recommerce growth; logistics/platform investment; emerging waste regulation (Chile/Mexico); export/input

		strengths (Peru textiles, Brazil cotton).
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Halal Meets Sustainable: A Powerful Convergence

A growing body of evidence shows that halal standards and sustainable fashion principles are converging into a hybrid model that could reshape the global apparel market. Analysts estimate that halal-sustainable fashion could command 30–50 % of global fashion sales by 2035 if current trajectories continue. The trend is powered by policy changes, technological innovation, demographic shifts and major brand participation. The following section provides an overview of the forces that made 2025 a tipping point for halal-sustainable fashion.

4.1 Size and growth of the halal and modest fashion markets

4.1.1 Islamic clothing market

- **Market value in 2025.** Industry Research’s 2025 update on the Islamic Clothing Market reported that the sector was worth ≈US \$86.1 billion in 2025 and is projected to reach US \$135.3 billion by 2034 (5.15 % CAGR). The report noted that the Muslim fashion consumer base

exceeded 600 million people, with modest fashion accounting for ≈11 % of global apparel consumption. Asia-Pacific, the Middle East and North Africa comprised >70 % of total consumption, and digital sales channels accounted for 48 % of transactions. E-commerce penetration is accelerating: “modest fashion” hashtags surpassed 1.5 billion views on social platforms, and online searches for “abaya online” rose 73 % between 2020 and 2024.

- **Sustainability within halal fashion.** Nearly 31% of manufacturers surveyed by Industry Research integrated organic cotton or bamboo textiles, while 18% shifted to recycled polyester. The report also found a 46% increase in sustainable and eco-friendly Islamic fashion product launches over two years.
- **Regional case – United States.** The U.S. Islamic clothing market

benefited from a 142% expansion in the number of modest fashion brands between 2019 and 2024, rising from 38 to over 92 companies. Online retail channels captured ~58 % of U.S. Islamic clothing sales. More than 280,000 U.S. retail outlets introduced modest-wear sections, reflecting mainstream acceptance. Consumers also demanded athleisure-inspired hijabs and sports abayas, sales grew 35 % over two years.

4.1.2 Modest clothing market

Beyond religious garments, the global modest clothing market, covering modest daily-wear, sportswear and swimwear, was valued at US \$85.1 billion in 2025 and is projected to reach US \$140.2 billion by 2034 (5.7 % CAGR). Analysts attribute growth to rising body-positivity and inclusivity movements. The modest daily-wear segment generated the highest revenue due to its broad appeal across age groups. Importantly, analysts highlighted that mainstream retailers and global fashion brands increasingly incorporate modest clothing lines into their collections. This integration allows modest brands to reach wider audiences and underscores the shift from niche to mainstream fashion.

4.2 Growth of the sustainable fashion market

4.2.1 Sustainable clothing market statistics

- **Market size.** Global Market Insights reported that the sustainable

clothing market was valued at US \$3.6 billion in 2024 and expected to grow from US \$3.9 billion in 2025 to US \$9.4 billion by 2034 at a 10.3 % CAGR. The study emphasised that more than 96 % of emissions from major apparel brands derive from Scope 3 sources (indirect emissions in supply chains), prompting investment in renewable energy projects. Consumers' willingness to pay for sustainability is rising, PwC's 2024 survey cited in the report found that people are willing to spend ~9.7 % more on sustainably produced goods.

- **Sustainable fashion market broader estimate.** Coherent Market Insights calculated a broader sustainable fashion market (covering apparel, footwear and accessories) at US \$9.19 billion in 2025, projected to reach US \$17.77 billion by 2032 (9.9 % CAGR). The firm noted that organic fabrics accounted for the largest share in 2025 and that online channels captured the greatest share of sales. Their analysis highlighted regulatory drivers such as the European Union's Circular Economy Act and China's textile decarbonisation roadmap, which are pushing brands to adopt circular production models and cut emissions.
-
- **Demand for sustainable materials.** The same report illustrated tangible steps: the pants and trousers

segment generated US \$800 million in revenue in 2024, expected to reach US \$2 billion by 2034, driven by durable designs and recycled materials. Organic cotton, recycled polyester and bamboo fabrics are being adopted to support circular economy models.

4.2.2 Demographic driver: growth of the global Muslim population

The halal-sustainable fashion nexus is fundamentally demography-driven. The Mastercard–CrescentRating Global Muslim Travel Index (GMTI) 2025 indicates that the global Muslim population will rise from ≈2.19 billion in 2025 to 2.54 billion by 2035, reflecting 350 million additional people in a decade. Muslims are projected to contribute ≈50 % of the world's population growth over this period. Large Gen-Z and millennial cohorts will enter their peak spending years, providing a strong consumption base for halal-sustainable fashion. The GMTI also shows that international Muslim arrivals reached 176 million in 2024, up 25 % from 2023, with expenditures forecasted to hit US \$235 billion by 2030. These trends imply growing demand for halal-compliant and ethically produced apparel across travel and lifestyle sectors.

4.3 Policy alignment and regulation

4.3.1 Mandatory halal certification in textiles

Indonesia's mandatory halal certification law illustrates the policy convergence of halal and sustainability. A 2024 report from *Salaam Gateway* notes that Indonesia, home to roughly 242 million Muslims, will enforce mandatory halal certification for clothing starting in 2026. Industry experts believe this regulation will require investment in certification, machinery and dedicated production lines, however, it will also position Indonesian brands to strengthen their global halal market presence. The article reports that Muslim spending on fashion reached US \$318 billion in 2022, with a projected CAGR of 6.1 % to US \$428 billion by 2027. Indonesia's policy is expected to integrate sustainability because halal textiles often rely on eco-friendly fibres, natural dyes and traceable supply chains.

4.3.2 Sustainability-focused legislation

Policy measures targeting environmental impacts in fashion further accelerate the shift toward sustainable clothing, policies that, in some instances, operate alongside halal requirements:

- **France's ultra-fast-fashion law (2025).** On 10 June 2025, France's Senate approved a law aimed at curbing the environmental harm caused by ultra-fast-fashion platforms such as Shein and Temu. The revised bill proposes banning advertising for ultra-fast-fashion companies and would introduce penalties of up to €10 per item of clothing by 2030 for companies that fail to meet environmental criteria. Senators argued that the law targets players who ignore

environmental, social and economic realities, while imposing lighter restrictions on European fashion brands. Such legislation drives all fashion companies, including halal and modest brands, to adopt more sustainable production methods.

- **Scope-3 emissions focus.** Global Market Insights noted that the 2025 sustainable fashion landscape is shaped by a focus on Scope 3 emissions, which account for more than 96 % of apparel-industry emissions. Regulators and investors are pressing brands to disclose and reduce these indirect emissions, encouraging investments in renewable energy and supply-chain transparency.

4.4 Harmonising halal standards

The Halal Practitioner 2025 trends report emphasises a harmonisation of halal certification standards across countries. Mature halal ecosystems like Malaysia, Indonesia and Singapore are refining regulations, while emerging markets (Vietnam, Cambodia and Brazil) are establishing robust frameworks. Global organisations and trade alliances (ASEAN and OIC) are working toward mutual recognition agreements to reduce certification costs and facilitate trade. These regulatory refinements support cross-border trade in halal-certified, sustainable garments.

4.5 Technology: verifying halal and sustainable products

Technological innovation is a critical enabler for halal-sustainable fashion. The same Halal Practitioner report notes that artificial intelligence (AI) is streamlining halal certification processes and forecasting market trends, while blockchain is ensuring transparency and traceability in supply chains. Blockchain allows documentation of each stage of production, from raw materials to retail, so that halal standards and environmental requirements are maintained. These tools build consumer trust and simplify compliance with multiple standards. Examples include QR code-linked halal certification labels and digital tracking of animal-free or eco-friendly fibres, which align with both halal and sustainability principles.

In addition to blockchain, brands are deploying AI-driven inventory systems. Coherent Market Insights highlighted that on-demand fashion platforms using AI can reduce over-production waste by 31 %. Technologies like digital embroidery and laser-cutting, mentioned in Industry Research's report, allow manufacturers to produce modest garments with less material waste and more precision.

4.6 Brand participation and mainstreaming of halal-sustainable fashion

- **Mainstream retailers embrace modest fashion.** The modest clothing market analysis reveals

that major retailers are incorporating modest collections into mainstream product lines. Companies such as H&M, Marks & Spencer, Zara, Uniqlo and Dolce & Gabbana were identified among the leading players. The expansion of modest collections into standard fashion departments underlines the shift from niche to mainstream consumption.

- **Diverse global demand.** Market analyses show that modest and halal fashion is not limited to Muslim-majority nations. In China, the modest clothing market is growing due to traditional attire trends and rising numbers of Muslim consumers. In India, the market blends traditional garments (sarees, kurtas) with modern modest styles for young urban professionals. United States growth is driven by increasing cultural diversity and demand from body-positive, inclusive consumers, influencers and celebrities boost awareness. In Germany and France, modest fashion is gaining acceptance through e-commerce platforms like Zalando and ASOS and through rising immigration.
- **Innovation in materials and design.** Brands are investing in materials that meet halal and sustainable criteria simultaneously. In Indonesia, the textile company KainHalal (the world's first halal-certified textile manufacturer) uses eco-friendly cupro fibre derived from cotton linters and natural dyes

to produce hijabs and abayas. Collaborations between KainHalal and fashion designers in London, Milan and Paris demonstrate global interest in halal-sustainable materials.

Similarly, the sustainable fashion market report notes that companies like TomTex are making 100 % biobased and biodegradable materials from chitosan (a mushroom and shrimp-shell derivative) for handbags and accessories. Such innovations reduce reliance on animal products, align with halal principles and support circular economy goals.

- **Consumer preference for ethical and modest products.** Industry Research's report observed that 61 % of consumers prefer modest fashion influenced by religious identity and comfort, whereas 25 % of new entrants in modest wear focus on luxury or designer segments. Younger demographics are particularly influential, the modest daily-wear segment thrives because it allows individuals to balance cultural or religious values with contemporary style. The rise of modest fashion influencers and digital platforms is amplifying these preferences.

4.7 The synergies driving halal-sustainable fashion

The convergence of halal and sustainable fashion arises from the alignment of their

core principles: ethical sourcing, transparency, welfare for people and animals, and environmental stewardship. Several key synergies emerge from the data:

- **Shared values and consumer trust.** Halal standards emphasise cleanliness, ethical treatment of animals and workers, and prohibited materials (e.g., pork-derived gelatin). Sustainable fashion focuses on environmental and social welfare, including fair wages, waste reduction and eco-friendly materials. Both frameworks rely on traceability and certification. Blockchain and AI technologies address these needs by verifying supply chains and allowing consumers to scan QR codes to confirm halal compliance and environmental credentials.
- **Demographic momentum.** With Muslims projected to account for 50% of global population growth between 2025 and 2035 and with a youth-heavy demographic entering prime consumption years, demand for fashion that respects religious norms and environmental values will surge. Global expenditure on Muslim travel is expected to reach US \$235 billion by 2030, indicating broader lifestyle spending that encompasses clothing.
- **Policy and regulatory push.** Indonesia's 2026 halal-certification requirement for textiles and France's 2025 law penalising ultra-

fast-fashion brands illustrate how governments are mandating ethical production. Future EU circularity laws and China's decarbonisation roadmap will compel brands, including halal fashion houses, to invest in sustainable materials and processes. Harmonisation of halal standards across ASEAN and OIC nations reduces barriers for sustainable halal garments to enter multiple markets.

- **Mainstream brand participation.** The incorporation of modest wear into mainstream collections by leading fashion houses and the adoption of sustainable practices by Islamic clothing manufacturers (e.g., organic cotton adoption) show that fashion companies recognise the commercial potential of halal-sustainable convergence. The synergy allows brands to tap both the burgeoning sustainable fashion market (valued at ~US \$9.19 billion in 2025) and the expansive halal/modest fashion markets (combined >US \$86 billion in 2025).
- **Technological enablers.** AI and blockchain platforms reduce the complexity of verifying dual compliance. For example, on-demand fashion platforms using AI reduce overproduction waste by 31 %, aligning with sustainability goals while offering customisation options to meet modesty requirements. Innovations like TomTex's 100 % biobased materials and KainHalal's cupro fibre provide

raw materials that are both halal-compliant and environmentally friendly.

Outlook

The data suggest that **halal and sustainable fashion are no longer separate niches but a rapidly converging mainstream segment**. The convergence is supported by robust market growth (Islamic clothing, modest wear and sustainable fashion markets collectively worth well over **US \$100 billion** in 2025), the projected expansion of the global Muslim population (rising by roughly **350 million** over the next decade) and increasing consumer willingness to pay for ethically produced goods. Policy reforms from Indonesia's mandatory halal certification to France's anti-fast-fashion law are aligning the regulatory environment around sustainability, while technology (AI and blockchain) provides the infrastructure to verify compliance. Analysts foresee that if these trends continue, **halal-sustainable fashion could capture 30–50 % of global apparel spending by 2035**, reshaping fashion into a sector where ethics, environmental stewardship and cultural values intersect.

Table 6: How halal and sustainable criteria overlap and reinforce each other in fashion

Halal Principle / Need	Sustainability Principle	Convergence Synergy
Modesty in design (loose, covering clothing)	Slow fashion (timeless, durable styles)	Modest designs tend to be classic and long-lasting, encouraging reuse. E.g. an abaya or long coat can be worn for years, reducing overconsumption.
Permissible materials (no pig leather, no harmful ingredients)	Eco-friendly materials (vegan leather, organic fabrics, non-toxic dyes)	Use of vegan leathers and natural fibers satisfies halal rules and is better for environment. (Many halal brands already opt for plant-based leather – appealing to vegans too.)
Humane animal treatment (no cruelty)	Ethical production (no animal testing, animal welfare)	Halal demands humane slaughter if animal products are used; sustainability pushes cruelty-free. Halal cosmetics going vegan/organic is a prime example of dual certification (halal + cruelty-free) boosting market reach.
Fair business practices (Islamic ethos discourages exploitation, usury)	Fair trade & labor rights (living wages, no sweatshops)	Ethical labor aligns with both. Islamic finance encourages fair profit-sharing, which complements corporate social responsibility efforts. A halal-sustainable brand often touts both worker welfare and compliance with faith-based ethical investing criteria.
Cleanliness and purity (products safe for body and environment)	Non-toxic, low-impact production (no hazardous chemicals)	Overlap in chemical safety – e.g. halal requires no harmful alcohol in cosmetics, sustainability favors natural ingredients. Both ensure products are safe and clean, benefiting consumer health and reducing pollution.

To illustrate the rising importance of this convergence across regions, consider the following outlook by 2035 for the share of fashion that is either sustainable, halal, or both (hybrid), along with regional accelerators:

Table 7: Share of fashion that is either sustainable, halal, or both (hybrid), along with regional accelerators by 2035

Region	Current "Conscious" Share (2025)	Key Accelerators to 2035	Projected Hybrid Share by 2035	Primary Driver
Asia Pacific	Sustainable ~ 41% of global sustainable market; Halal ~49.7% regional share.	Government policies (Indonesia's halal mandate, China's eco-factories), tech adoption (AI in e-commerce, traceability), 5.6% CAGR Muslim population growth.	40–60% (world leader in hybrid adoption)	Youthful Muslim demographics + proactive policy (e.g. Indonesia's push for 50% "eco-shariah" compliance by 2030).
Middle East & Africa	Halal currently dominant (>30%); nascent sustainable efforts.	Gulf states' Vision 2030 investing in halal hubs, push for cruelty-free halal cosmetics (e.g. Saudi investing in biotech). ESG initiatives linked with oil revenue diversification.	50–70% (most of market will be halal, much of that also sustainable)	Strong government drive (e.g. UAE setting up halal sustainability standards), wealth funding innovation.
Europe	Sustainable ~23%; modest fashion ~7–10% (Muslim minority).	EU regulations (forcing circularity for all, benefitting halal modest brands too), emergence of "modest fashion weeks" and inclusive marketing, resale growth 10%→30%.	30–45% (significant hybrid segment emerging)	Regulation + growing non-Muslim interest in modest, sustainable clothing (crossover appeal).
North America	Sustainable ~10%; Halal cosmetics niche but growing (NA halal beauty ~\$5B).	Social media influencers promoting thrifting and modest styles, Gen Z Muslims in US/Canada blending identities (e.g. hijabi sustainability)	25–40% (modest but notable hybrid market)	Grassroots social demand, ethical lifestyle branding (e.g. athleisure wear that is both modest and eco-friendly gaining popularity).

Region	Current "Conscious" Share (2025)	Key Accelerators to 2035	Projected Hybrid Share by 2035	Primary Driver
		bloggers), ethical investing trends.		
Latin America	Sustainable 5–7%; Halal very small (pockets in diaspora).	Diaspora influence (import of halal brands), cost-driven eco adoption, modest fashion via religious minorities (Muslim & others) and cultural preference (indigenous dress revival).	15–25% (early stage but growing)	Cost and culture – using <i>affordable</i> sustainable options (secondhand) and modest heritage dress which often is sustainable by nature.

Category Deep Dive: Markets, Waste, and Opportunity

Having examined the broad forces and regional trends, we now turn to a deep dive by product category. Different fashion categories – apparel, footwear, accessories, sportswear, beauty, etc. – have distinct market dynamics and waste profiles. Understanding these nuances is critical for identifying where the biggest sustainability opportunities lie and how circular models can take hold. In this section, we first look at the market evolution for each category, including current size and projected growth to 2035, along with how much of each category could realistically shift to sustainable or halal models. We then delve into the waste and resource challenges category by category, quantifying the problem (e.g. textile waste volumes) and highlighting the

circular solutions that could drastically cut waste and emissions. This granular view reveals, for instance, that some categories like sportswear and beauty might actually lead the way in circularity, while others like fast-fashion apparel face tougher challenges.

This section builds on the broad market and regional analysis by examining the major fashion categories: apparel, footwear, accessories, sportswear and beauty/cosmetics through the lens of market growth, the share that can realistically transition to sustainable or halal models, and the waste/resource challenges that circular solutions need to address.

5.1 Overall context

- Fast fashion’s environmental burden:** Global fashion consumption produces around 92 million tonnes of textile waste annually, with a rubbish truck full of clothes ending up in landfill every second. Dyeing, finishing and fibre production create over 20% of global waste-water and 3% of global CO₂ emissions. Footwear adds to this burden; consumers in the United States discard over 300 million pairs of shoes every year and 95 % of them end up in landfills.
- Water and resource intensity:** Producing one kg of cotton requires ~20 000 litres of water. Synthetic fibres used in sportswear microplastics, with textiles releasing nearly half a million tonnes of microplastics to the ocean each year.
- Consumer shifts:** Growing environmental and ethical awareness, amplified by social media, is pushing brands toward eco-friendly, halal (Sharia-compliant) and circular products. Halal certification prohibits materials such as pigskin and alcohol and emphasises animal welfare and ethical labour; it therefore overlaps with sustainability goa

5.2 Category-by-category analysis

5.2.1. Apparel

Table 8: Apparel Category Scorecard: Market Size, Adoption Trajectory, Resource Risks, and Likely Leaders (2025–2035)

Metric	Data points	Key takeaways
Current & projected market size	Global apparel market valued at US\$1.9 trillion (2025) and forecast to reach US\$2.6 trillion by 2035 with a CAGR of 3.3 %. Casual wear (~38 % share), formal wear (~22 %) and sportswear/athleisure (~18 %) dominate.	Growth is steady but slower than in emerging sectors. Asian and Middle Eastern markets show the fastest growth due to young demographics and rising income.
Sustainable/halal share	The sustainable apparel market is projected to grow from US\$120 billion in 2025 to US\$196 billion by 2035	Adoption is still niche. If mainstream brands scale circular models (rental,

Metric	Data points	Key takeaways
	(CAGR 5 %). This means sustainable apparel represents ~6 % of total apparel revenues in 2025 and could reach ~7.5 % by 2035.	repair, take-back) and halal-compliant sourcing (e.g., avoiding pigskin, adopting ethically slaughtered animal materials), this share could realistically grow into the 10 – 15 % range by 2035.
Waste & resource challenges	Fast fashion has led to declining use per garment; clothes are worn only 7–10 times before disposal. Apparel production is water-intensive and contributes to 20 % of global waste-water.	High volumes of textile waste and resource use make apparel one of the most wasteful categories.
Circular/halal opportunities	Scale up circular models such as resale platforms (thredUP, Depop), rental services, repair and upcycling. Integrate recycled fibres (mechanically and chemically recycled cotton, polyester), design garments for disassembly and recycling, and adopt digital passports for traceability. For halal apparel, shift to ethically sourced animal products (e.g., halal-certified leather), plant-based alternatives and ensure supply chain transparency.	
Who might lead	Premium and sportswear brands (Patagonia, Stella McCartney, Adidas) already invest in circular textile programmes; these companies could shape industry norms. Fast-fashion giants face tougher challenges due to business models based on high volume and low prices.	

5.2.2. Footwear

Table 9: Footwear Deep Dive: Market Growth, Sustainable/Halal Penetration, Waste Profile, and Circular Opportunity Map (2025–2035)

Metric	Data points	Key takeaways
Current & projected market size	Global footwear market estimated at US\$420 billion in 2025 and expected to reach US\$560 billion by 2035, growing at a CAGR of 2.9 %.	Growth is moderate; athletic/sport footwear holds a 40% share.
Sustainable/halal share	Sustainable footwear market forecast to expand from US\$10.4 billion in 2025 to US\$19.4 billion by 2035 (CAGR 6.4 %). This translates to ~2.5 % of total footwear revenues in 2025 and ~3.5 % by 2035.	With increasing use of recycled plastics and bio-based foams, the sustainable share could realistically reach 5–10 % by 2035. Halal-compliant footwear (avoiding pigskin, using ethically sourced hides) is still emerging but could ride the broader sustainable trend, especially in Muslim-majority markets.
Waste & resource challenges	Over 20 billion pairs of shoes are produced annually and shoes are largely made from synthetic materials. In the U.S., consumers throw away >300 million pairs each year and 95 % end up in landfills. Footwear manufacturing accounts for about 1.4 % of global greenhouse-gas emissions.	Complex material mixes (rubber, plastics, leather, adhesives) make recycling difficult; shoes can take decades to decompose.
Circular/halal opportunities	Invest in design for disassembly so soles, uppers and linings can be separated and recycled; use mono-material or bio-based components (e.g., mushroom leather, natural rubber). Expand take-back programmes (e.g.,	

Metric	Data points	Key takeaways
	Nike's Move to Zero, Adidas' Futurecraft Loop), repair services and resale. Brands should adopt halal-certified leather and adhesives to attract Muslim consumers.	
Who might lead	Athletic brands have strong R&D and marketing to champion sustainable footwear; some like Adidas and Allbirds already use recycled plastic and sugarcane-based foams.	

5.2.3. Fashion accessories (eyewear, jewellery, handbags, wallets, watches)

Table 10: Fashion Deep Dive: Market Growth, Sustainable/Halal Penetration, Waste Profile, and Circular Opportunity Map (2025–2035)

Metric	Data points	Key takeaways
Current & projected market size	Fashion accessories market valued at US\$1.289 trillion in 2026 and projected to reach US\$1.960 trillion by 2035 (CAGR 4.76 %).	Accessories contribute roughly half as much revenue as apparel and footwear combined.
Sustainable/halal share	There is limited direct data on sustainable accessories. Given the small share of sustainable apparel and footwear, a conservative assumption is that 3–5 % of accessories revenue is currently from sustainable or halal products (e.g., recycled metal jewellery, vegan leather handbags) and this could rise to 10–15 % by 2035.	
Waste & resource challenges	Fast fashion accessories often use PVC, faux leather, cheap metals and plastics that are rarely recycled. Handbags and	The diffuse nature of accessories makes collection and

Metric	Data points	Key takeaways
	jewellery are frequently seasonal or trend-driven, leading to under-use and disposal. Mining for metals (gold, silver, gemstones) has significant environmental and social impacts (water pollution, deforestation).	recycling challenging; the industry also struggles with counterfeits and waste from packaging.
Circular/halal opportunities	Use recycled precious metals, lab-grown diamonds, plant-based or mycelium leathers and traceable supply chains. Expand repair services (watch servicing, handbag restoration) and second-hand platforms (Vestiaire Collective, The RealReal). Halal considerations include avoiding animal-derived glues or leathers and using ethically mined materials.	
Who might lead	Luxury houses and artisan brands can charge a premium for sustainable materials and transparency (e.g., Tiffany's use of traceable diamonds). Tech-enabled resale platforms enable circularity in accessories.	

5.2.4. Sportswear/athleisure

Table 11: Sportswear/athleisure Deep Dive: Market Growth, Sustainable/Halal Penetration, Waste Profile, and Circular Opportunity Map (2025–2035)

Metric	Data points	Key takeaways
Current & projected market size	Global sportswear market is expected to grow from US\$323.4 billion in 2025 to US\$591.9 billion by 2035, reflecting a strong CAGR of 6.2 %.	Rising fitness culture and the blurring of athletic and casual wear drive rapid growth.
Sustainable/halal share	Many sportswear brands are committing to recycled polyester and take-back schemes; if sustainable apparel is ~6 % of the wider	

Metric	Data points	Key takeaways
	apparel market, sustainable sportswear may be slightly higher (~8 %) because of the performance benefits of recycled fibres. With continuous innovation (e.g., enzymatically recycled polyester anoraks), this share could realistically reach 15 – 20 % by 2035. Halal considerations revolve around using plant-based or halal-certified materials and avoiding alcohol-based finishes.	
Waste & resource challenges	Sportswear is dominated by synthetic materials (polyester, nylon). Each wash releases microplastics—textile microfibres account for ~10 % of microplastics in the ocean. Fast product cycles (new collections each season) create excess inventory and waste.	The high technical content of performance fabrics makes recycling challenging.
Circular/halal opportunities	Adopt closed-loop recycling for polyester (e.g., chemical recycling to depolymerise and repolymerise fibre), use bio-based performance materials (bamboo, hemp, algae), and design garments that can be repaired or refreshed. Offer subscription-based apparel leasing or buy-back programmes for worn gear. Brands should ensure adhesives and finishes meet halal requirements and use non-animal materials.	
Who might lead	Sportswear brands (Nike, Adidas, Puma, Lululemon) are already showcasing innovation; their capacity for R&D and marketing positions them to lead circular sportswear.	

5.2.5. Beauty and cosmetics

Table 12: Beauty and cosmetics Deep Dive: Market Growth, Sustainable/Halal Penetration, Waste Profile, and Circular Opportunity Map (2025–2035)

Metric	Data points	Key takeaways
Current & projected market size	The cosmetics market was valued at US\$361.23 billion in 2025 and is forecast to reach US\$599.71 billion by 2035 (CAGR 5.2 %).	Skin and sun care dominate the market.
Sustainable/halal share	Sustainable beauty and skincare market, including organic, natural, vegan and cruelty-free products is valued at US\$190.7 billion in 2024 and projected to reach US\$433.2 billion by 2034 (CAGR 8.6 %), suggesting that sustainable products already account for roughly 50 % of the broader beauty market and are growing faster than conventional cosmetics. The circular beauty products market specifically (refillable and recyclable products) is forecast to expand from US\$3.1 billion in 2025 to US\$7.9 billion by 2035 (CAGR 9.8 %). The halal cosmetics market is estimated at US\$53.29 billion in 2025 and expected to reach US\$163.91 billion by 2035, growing at 11.89 %.	Sustainable and halal segments are among the most dynamic in beauty, indicating strong consumer interest.
Waste & resource challenges	Beauty products generate large amounts of packaging waste, mostly small plastic containers that are hard to recycle. Many conventional ingredients have petrochemical origins, and formulations often include microplastics.	Waste and pollution from packaging and ingredient sourcing are major concerns.
Circular/halal opportunities	Increase adoption of refillable packaging, biodegradable or recyclable materials, and upcycled ingredients (e.g., repurposing food waste into cosmetic ingredients). Encourage	

Metric	Data points	Key takeaways
	return-and-refill systems in stores. Brands can achieve halal compliance by avoiding animal-derived ingredients (e.g., collagen from pigs), alcohol and non-halal preservatives.	
Who might lead	Indie and mid-size brands (e.g., Lush, The Body Shop, Tata Harper) are already pioneers in zero-waste packaging and clean formulations. Mainstream players (L’Oréal, Estée Lauder) are investing heavily in circular packaging and halal product lines.	

Redesigning Fashion Economics: Circular Affordability at Scale

6.1. The affordability challenge in sustainable fashion

Sustainable fashion has historically been perceived as expensive. Organic cotton basics upcycled items or ethically-made garments often carry double or triple the price of fast-fashion equivalents. The price premium reflects labor-intensive processes, high material costs and smaller production runs. Data from PwC’s 2024 *Voice of the Consumer* survey show that consumers are willing to pay a 9.7 % premium on average for goods produced

or sourced sustainably, a sign of growing awareness but also an acknowledgement that sustainable options cost more.

A YouGov survey of 17 international markets found that 26 % of consumers would pay up to 10 % more, while 13 % would pay up to 25 % more for sustainable clothing. In markets like India and the United Arab Emirates, roughly one in five respondents were willing to pay more than 50 % extra, whereas only 18 % of Americans would accept a 10 % premium. These figures illustrate the ceiling for price premiums: most shoppers accept modest surcharges but balk at significant markups. To scale sustainable fashion, circular models, resale, rental, repair and product-as-a-service, must achieve price parity with conventional fashion.

6.2 Circular business models and cost advantages

Circular models create value by maximising the use of each garment. Instead of the linear “buy, wear a few times, discard” model, clothes are designed to be shared, repaired and resold. Each additional use spreads the embodied cost over more wearers, lowering cost per wear. Evidence shows that durable garments achieve far lower cost per wear than cheap fast-fashion items. A cost-per-wear study led by researchers at the University of Bath and Cambridge tested six experiments where participants were shown cost-per-wear information. When the durable item’s cost-per-wear was lower, participants consistently preferred it despite higher upfront prices. Average participants were about 38 years old with women comprising 59 % of the sample, indicating broad appeal. This research suggests that transparent cost-per-wear framing can nudge consumers toward quality and by extension towards circular models where garments circulate through multiple owners.

Circular business models also tap into behavioural shifts. During the *BoF–McKinsey State of Fashion 2025* consumer survey, 64 % of US fashion shoppers traded down to cheaper options in 2024 and over 70 % planned to shop at outlets or off-price retailers. More than 60 % of consumers in the US and UK stated they often try to save money on fashion. Premium shoppers—those normally buying full-price products—are adopting these value-seeking behaviours; 23 % of

premium customers now use resale platforms to save money.

Cost-consciousness, therefore, is widespread and aligns with circular models that offer lower prices via resale and rental.

6.3 Growing markets for resale, rental and repair

The scale of circular fashion is already substantial. The global second-hand fashion market was worth US\$210.3 billion in 2025 and is forecast to reach US\$581.3 billion by 2035 (compound annual growth rate (CAGR) 10.7 %). Clothing accounts for more than 51 % of this market, while the low-price range segment (the affordable end) holds 42.9 % share. ThredUp’s 2025 *Resale Report* notes that the global secondhand apparel market grew 15 % in 2024 and now accounts for 9 % of global apparel spending. In the United States, the market is projected to grow from US\$49 billion (2024) to US\$74 billion by 2029. Younger consumers drive this growth: new shoppers will contribute 60 % of incremental secondhand spend, and generations aged 18–44 will account for 68 % of incremental spending.

The online clothing rental market is smaller but rapidly growing. Future Market Insights estimates the market at US\$2.6 billion in 2025, projecting an increase to US\$6.4 billion by 2035 (CAGR 9.5 %). Ethnic wear and formal wear dominate rentals, and the business-to-consumer segment is expected to expand as subscription services gain traction. GlobalData reports that the broader apparel rental market

reached US\$6.2 billion in 2023, more than doubling its 2016 size. Among peer-to-peer platforms, a US\$300–US\$400 dress can be rented for US\$30–US\$50, an 85–90 % discount that appeals to budget-conscious younger consumers.

Repair services form another pillar of circular fashion. The global clothing and footwear repair market was valued at US\$3.8 billion in 2026, projected to reach US\$4.76 billion by 2035 with a modest CAGR of 2.52 %. While small relative to resale and rental, repair services underpin circularity by extending garment life. Designers increasingly incorporate repairability through modular construction and spare parts. Subscription models for

repairs and alterations could make tailoring more affordable, especially as wages and materials continue to rise.

The circular fashion market itself – covering apparel, accessories, footwear and reused textiles—is projected to grow from US\$6.78 billion in 2024 to US\$7.48 billion in 2025 and US\$18.42 billion by 2035, with a CAGR of 9.43 %. Similarly, the sustainable clothing market is expected to rise from US\$3.9 billion in 2025 to US\$9.4 billion by 2034, a CAGR of 10.3 %. These projections indicate that circular and sustainable segments are capturing investors’ attention and have room to scale.

Table 13: Market size and projections for key circular fashion segments (values in USD)

Segment	2024/25 market size (USD)	Projection for 2034/35 (USD)	CAGR
Second-hand fashion (global)	210.3 billion (2025)	581.3 billion (2035)	10.7 %
Secondhand apparel (US)	49 billion (2024)	74 billion (2029)	
Online clothing rental	2.6 billion (2025)	6.4 billion (2035)	9.5 %
Apparel rental (all channels)	6.2 billion (2023)	–	–
Clothing & footwear repair	3.8 billion (2026)	4.76 billion (2035)	2.52 %
Circular fashion market (all products)	6.78 billion (2024)	18.42 billion (2035)	9.43 %
Sustainable clothing market	3.9 billion (2025)	9.4 billion (2034)	10.3 %

The table highlights the scale of opportunity: second-hand fashion dwarfs the other segments and is growing rapidly, but rental and repair services also offer room for expansion. Sustainable clothing remains small but has a high growth rate, indicating a market still in its infancy.

6.4 Consumer adoption and cost-conscious behaviours

Affordability is no longer a niche concern; it drives mainstream fashion behaviour. The *State of Fashion 2025* survey revealed that 64 % of US shoppers were trading down to cheaper

alternatives, and over 70 % planned to shop at outlets or off-price retailers even if their discretionary budgets increased. More than 60 % of consumers in the US and UK reported trying to save money on clothing “often” or “as much as possible”. These behaviours persist despite improving economies, suggesting a structural shift towards value.

Resale platforms are benefiting from this shift. A 2024 survey of 3,000 American adults conducted by GlobalData and ThredUp found that 56 % of secondhand shoppers used online resale marketplaces. Another 58 % of consumers overall bought clothing secondhand in 2024. Importantly, the share of younger shoppers is high: ThredUp estimates that generations aged 18–44 will account for 68 % of incremental spend and that 60 % of incremental secondhand spending comes from shoppers new to resale. For premium shoppers, 23 % said they used resale platforms to save money, highlighting that even affluent consumers view resale as a value play.

Luxury resale offers steep discounts relative to new items. After pandemic price hikes lifted luxury retail prices by 20–30 %, a survey of 400 American luxury consumers found 46 % were hesitant to buy new because they could not justify the cost. On the RealReal platform, *secondhand luxury goods are typically priced 30–70 % below retail*. Nearly half (47 %) of RealReal customers consider resale value before purchasing new items, suggesting that high-end shoppers are incorporating residual value into purchase decisions.

Table 14: Evidence of cost conscious consumer behaviours in 2024–2025

Behaviour	Metric (2024–2025)
Trading down	64 % of US shoppers traded down to lower-priced fashion in Q3 2024
Shopping off-price	>70 % plan to buy from outlets/off-price retailers in next 12 months
Saving on fashion	>60 % of US and UK consumers try to save money on clothing often
Secondhand adoption (US)	58 % of consumers bought clothing secondhand in 2024; 56 % of secondhand shoppers used online resale platforms
New vs. resale spending	New shoppers account for 60 % of incremental secondhand spend; ages 18–44 account for 68 % of incremental spend
Premium shoppers using resale	23 % of premium shoppers use resale platforms to save money
Luxury shoppers hesitant to buy new	Survey of American luxury consumers (average income $\geq$ US\$250 k) found 46 % reluctant to buy new after price hikes; resale items priced 30–70 % below retail

This evidence shows that cost consciousness is not limited to low-income consumers; even premium and luxury shoppers participate in resale. The ability to resell garments also shifts how consumers evaluate purchases. Nearly half of RealReal customers consider residual value before buying, effectively treating garments as assets rather than expenses.

6.5 Price comparisons: rental, resale and cost per wear

Circular models' economic appeal becomes clearer when comparing costs. Data from peer-to-peer rental platforms like Pickle show that a US\$300–US\$400 dress rents for US\$30–US\$50, a discount of roughly 85–90 %. Forbes notes that monthly subscription services such as Nuuly and Rent the Runway can cost

around US\$90 per month for access to multiple items, allowing fashion-conscious consumers to refresh wardrobes without large upfront spending. A Canadian comparison of occasion-wear rentals found that designer gowns retailing at CAD 1,114.69 could be rented for CAD 139.34, and a CAD 348.34 suit rents for CAD 209. Renting formalwear typically costs just 10–15 % of retail prices. Additionally, rentals include cleaning, so customers avoid extra costs like dry-cleaning and storage.

Resale offers similar savings. Luxury resale marketplace the RealReal lists items 30–70 % below retail prices. For everyday apparel, secondhand purchases through thrift stores or online platforms are typically 50–75 % cheaper than new; this price gap drives widespread adoption. In contrast, sustainable clothing often carries premiums: sustainable basics cost US\$35–

75 for a T-shirt versus US\$5–12 for a fast-fashion tee. Jeans from sustainable brands retail around US\$80–150, while fast-fashion jeans cost US\$15–25. However, the cost-per-wear study shows that durable garments yield lower long-term cost: a US\$120 sweater worn 100 times

equals US\$1.20 per wear, whereas a US\$15 fast-fashion sweater worn eight times costs US\$1.87 per wear.

Rental model reduces upfront costs and waste; buying requires high upfront cost and leads to storage and maintenance.

Table 15: Price comparisons between new, resale and rental models (selected examples)

Item/scenario	New purchase price	Resale or rental price	% saving or premium
Designer gown (Canada)	CAD 1,114.69 purchase price	CAD 139.34 rental	≈ 87 % cheaper
Occasion suit (Canada)	CAD 348.34 purchase	CAD 209 rental	≈ 40 % cheaper
Luxury dress (Pickle)	US\$300–400 retail	US\$30–50 rental	≈ 85–90 % cheaper
Designer dress (Herbiar)	US\$400 new	US\$50 rental	≈ 88 % cheaper
Subscription wardrobe	–	US\$90–100 per month for multiple items	Cost per garment depends on rotation; typically cheaper than buying equivalent items
Luxury resale items	Retail price of luxury goods rose 20–30 % post-pandemic	Listed 30–70 % below retail	30–70 % cheaper
Sustainable basics (T-shirt)	US\$35–75	Fast-fashion T-shirt US\$5–12	Sustainable premium 3–6×
Cost per wear example	US\$120 sweater worn 100 times = US\$1.20 per wear	US\$15 fast-fashion sweater worn 8 times = US\$1.87 per wear	Higher upfront cost yields lower cost per wear

These price comparisons illustrate why circular models can outcompete fast fashion on affordability. Renting high-end garments for 10–15 % of retail cost makes

luxury accessible to budget-constrained shoppers. Resale discounts of 30–70 % provide value without sacrificing brand cachet. Even when sustainable garments

cost more initially, their superior durability and potential resale value lower the effective cost per wear.

6.6 Aligning circular models with human behaviour

Beyond raw economics, circular fashion resonates with changing attitudes toward ownership. Younger generations value access over possession. A 2024–2025 trend report from *The Future of Commerce* observed that Millennials and Gen Z prefer rental models because they enable wardrobe variety without clutter and align with eco-conscious values. Sociologist Venkat Viswanathan notes that the youngest professionals see renting as part of a broader sharing economy and will carry this mentality into business decisions. Fashion rental also suits the “wear it once” culture reinforced by social media: consumers can appear in new outfits for events or photos without purchasing new items.

Repair services tap into a growing repair culture. The *Fitzroy* analysis notes that tailoring and preservation costs add hidden expenses to owning occasion wear (CAD 100–200 for alterations, CAD 397 for wedding dress preservation), while rental fees already include cleaning. Modular design and repair services further reduce cost per wear. For example, clothing subscription company Rent the Runway offers repair and replacement services as part of its subscription, spreading maintenance costs across many users. In communities with limited budgets, local repair cafes and mending workshops

provide low-cost alternatives to discarding garments.

Consumer psychology research also shows that transparent economic cues can shift preferences. In the University of Bath/Cambridge study, providing cost-per-wear information increased preference for durable garments; the effect was strongest when shoppers could compare CPW values and when third-party certification improved trust. Communicating cost-per-wear reframes sustainability as smart spending, encouraging even price-sensitive shoppers to invest in quality. Retailers can embed CPW labels or digital calculators to normalise the concept and highlight the value proposition of circular products.

6.7 Barriers and cautions

While circular models promise affordability and sustainability, they face challenges. A 2025 press release from Loughborough University argues that many circular fashion projections are overly optimistic. After reviewing 20 industry reports, researchers identified a US\$460 billion miscalculation in claims that circular business models could recover over US\$500 billion in lost value. They found that circular models often operate on lower margins than new product sales, meaning that if they actually reduce new production, industry revenues may shrink, undermining claims that circular fashion can simultaneously cut waste and maintain profits. The study also criticises circular narratives for neglecting overproduction and labour conditions. These findings remind us that affordability cannot come at the expense of worker

wages or environmental performance; robust regulation and transparent accounting are essential.

Cost structure is another barrier. For rental services, delivery, cleaning and inventory management remain expensive. GlobalData’s Pippa Stephens notes that some rental companies struggle to turn a profit because logistical costs erode margins. Subscription fees around US\$90 per month may still be unaffordable for

many consumers. For sustainable brands, high material costs and fair wages mean that price parity with fast fashion is challenging; even at a 9.7 % average premium, many consumers remain price-sensitive. Finally, infrastructure for recycling and repair is underdeveloped in many regions, limiting the scalability of circular models.

Table 16: Willingness to pay and affordability perceptions for sustainable fashion

Metric	Insights
Average premium consumers will pay for sustainable goods	9.7 % average willingness to pay extra for sustainably produced or sourced goods (PwC’s 2024 Voice of the Consumer survey)
Global willingness to pay for sustainable fashion	53 % of respondents across 17 markets said they would pay more for sustainable clothing; 26 % would pay up to 10 % more and 13 % would pay up to 25 % more
Market differences	36 % of Mexican consumers and 28 % of consumers in Great Britain and India would pay up to 10 % more; only 18 % of Americans would do so. Around 20 % of UAE consumers and 16 % of Indian consumers would pay a premium of more than 50 %
Luxury consumer hesitancy	46 % of surveyed affluent Americans hesitated to buy new luxury goods due to 20–30 % price increases; they turned to resale where items were 30–70 % cheaper
Sustainable basics vs. fast fashion	Sustainable T-shirts US\$35–75 vs. fast-fashion US\$5–12 (sustainable premium 3–6×)

The willingness-to-pay table shows that although a majority express willingness to pay more, the acceptable premium is small. Regional differences matter: emerging markets like India and the UAE show higher willingness to pay larger premiums, whereas US and European consumers prefer modest surcharges. This

suggests that circular models must focus on cost savings in price-sensitive markets while emphasising value retention and exclusivity in luxury segments.

6.8 Toward circular affordability at scale

The evidence collected in 2024–2025 reveals a convergence of trends: consumers across income levels are cost-conscious; resale and rental markets are booming; and perceptions of value are evolving. Circular fashion models—resale, rental, repair and product-as-a-service, tap into these shifts by lowering upfront costs, maximising cost per wear and recovering value through resale. As Table 3 demonstrates, renting a designer gown for 10–15 % of its retail price yields immediate savings, while resale offers high-end products at 30–70 % below retail. These discounts align with the 9.7 % premium that consumers are willing to pay for sustainability and with the value-seeking behaviours identified by McKinsey.

To democratize circular fashion, brands and policymakers must address several priorities:

1. **Design for durability and repairability.** Long-lasting garments reduce cost per wear and facilitate rental and resale. Modular components, standardized parts and accessible repairs will lower maintenance costs and extend garment life. Investments in repair services, from local tailors to brand-operated repair centres, can create jobs and reduce waste.
2. **Scale resale infrastructure.** Digital platforms like ThredUp and the RealReal have shown that online resale can achieve mass adoption. Integrating resale into brand-owned channels, either through take-back programmes or brand-certified marketplaces, can expand supply, ensure quality and build consumer trust. Transparent pricing and authentication will encourage premium shoppers to consider resale as a first option.
3. **Innovate rental logistics.** Rental companies must reduce cleaning, transport and inventory costs to maintain affordability. Strategies include localised distribution hubs, low-impact laundering technologies, and dynamic pricing based on demand. Partnerships between rental platforms and brands can improve garment design for rental durability.
4. **Communicate cost-per-wear and resale value.** Labelling garments with cost-per-wear estimates or expected resale value helps consumers perceive purchases as investments rather than expenses. The University of Bath/Cambridge study shows that such labels shift preference toward durable garments. Retailers should adopt digital tools or physical labels to normalise this metric.
5. **Address equity and labour issues.** Affordability must not come at the expense of workers. The Loughborough study reminds us that circular models often operate on lower margins, which could push costs down the supply chain. Policies ensuring fair wages and safe working conditions, such as

living wage requirements and transparency laws, are essential to avoid transferring the cost burden onto garment workers.

6. **Encourage regulatory support.**

Governments can incentivise circular practices through tax rebates for resale, reduced VAT on

repair services, or extended producer responsibility schemes that compel brands to design for longevity and manage end-of-life logistics. Europe's ban on PFAS in textiles shows how regulation can drive innovation in materials and reduce environmental harm

Labor and Profitability: Who Wins and Who Risks Extinction?

7.1 Employment shifts in a value-driven fashion industry

The fashion industry is an enormous global employer, but its labour profile is changing rapidly as sustainability and digitalisation reshape business models. In 2025 the global fashion and textile value chain employed roughly 430 million people – about 11.9 % of the global workforce of 3.62 billion (statistic compiled by the International Labour Organization and cited by industry analysts). Most of these jobs were in garment factories and supply-chain logistics, but mounting labour shortages in retail and rising wages signal that traditional roles are no longer plentiful. A McKinsey–BoF report found that in 2023 75 % of fashion companies reported operating without enough frontline retail employees and there were 2.5 million more U.S. retail job vacancies than job seekers, with 44 % of retail workers saying they planned to leave their jobs within 3–6 months. Retail wages have risen over 20 % since the pandemic—nearly

twice the average wage growth in the U.S. private sector—and losing a frontline employee can cost retailers \$2,000–\$10,000 in turnover expenses. Luxury group LVMH said it would recruit 22,000 workers by the end of 2025, two-thirds of them in sales roles. These statistics underline two pressures: high-turnover retail jobs become expensive, while the industry struggles to attract and train sales associates capable of conveying sustainability-focused value propositions.

The move from high-volume fast-fashion to circular, value-driven models will likely shrink labour in mass garment manufacturing but expand employment in repair, reuse and recycling. A landmark report by the International Labour Organization, World Bank and Circle Economy published in December 2025 provided the first global baseline of circular economy employment. The report shows that 121–142 million people work in circular economy activities, equivalent to 5–5.8 % of global employment. Over half of these jobs—52 %, or about 74 million—are informal,

concentrated in low- and lower-middle-income countries where 84 % of circular workers lack contracts or social protection. Asia-Pacific alone accounts for 77.6 million circular economy jobs. Repair and maintenance activities constitute the largest share of circular employment, accounting for 46 % of jobs and employing at least 65.2 million people worldwide. In contrast, manufacturing, construction and mining combined employ only 20.5 million workers in partially circular activities—revealing that heavy industries remain largely linear and offering significant job-creation potential if circular practices expand. The report warns that a majority of circular jobs are low-productivity and low-wage, making formalisation, skills upgrading and worker protections essential.

7.2 New roles emerging

Circularity and digitalisation drive demand for new labour profiles, ranging from technical to creative roles.

5. **Recycling technicians and material scientists:** The push to close the loop on textiles has birthed companies such as Circ and Unspun that convert textile waste into new fibres. Research groups note that recycling and waste-management jobs make up 8 % of circular-economy employment, and the International Labour Organization observes that repair and recycling jobs create livelihoods for millions but often lack safety and labour protections.
6. **Resale logistics and authentication specialists:** The 2025 ThredUp Resale Report estimated that the global second-hand apparel market was US\$227 billion in 2025 and projected it to reach US\$367 billion by 2029. Online resale in the U.S. was forecast to grow at a 13 % CAGR, reaching US\$40 billion by 2029. Handling millions of used garments requires logistics coordinators, quality inspectors and authentication specialists to detect counterfeits, offering new employment pathways.
7. **Rental subscription and product-as-a-service managers:** Fashion rental platforms like Rent the Runway and Hurr, while still small relative to the overall market, are expanding. They require logistics teams to manage garment cleaning, repair and delivery, plus data analysts to optimise inventory. Although few large-scale statistics exist for 2025, analysts note that subscription-model growth and consumer interest in access over ownership indicate a need for new service roles.
8. **Digital and AI roles:** Generative AI is transforming product discovery and supply-chain planning. In McKinsey's 2024 survey of fashion executives, 50 % said product discovery was the main use case for generative AI in 2025, while 82 % of customers said they wanted AI to reduce the time they spend

researching what to buy. This indicates demand for AI engineers and data scientists in fashion. At the same time, generative-AI tools may automate low-skill design or marketing tasks, threatening some jobs.

9. **Sustainability compliance and reporting:** Regulatory moves such as the EU's Extended Producer Responsibility (EPR) for textiles and France's climate-resilience laws require brands to track and report environmental impacts. Companies now hire ESG compliance officers, sustainability analysts and traceability specialists to meet these obligations. According to McKinsey, 63 % of fashion brands were behind on their 2030 decarbonisation targets in 2024, yet only 18 % of executives saw sustainability as a top-three risk for 2025; this misalignment suggests that sustainability governance roles will continue to expand as regulations tighten.

7.3 Job losses and social risks

While new roles emerge, some jobs risk disappearance or significant reduction:

- **Mass garment factory work:** The adoption of automation, onshoring and near-shoring (e.g., robot-sewing, 3D knitting and micro-factories) reduces demand for manual sewing. Additionally, rising minimum wages in traditional production hubs compress margins. Cambodia's National

Minimum Wage Council raised garment worker pay to US\$208 per month for 2025 (US\$206 for probationary workers), up US\$4 from 2024. Even with allowances and bonuses, workers expected monthly earnings of US\$225–236 to keep pace with living costs. Similar wage increases in Bangladesh and Vietnam may encourage brands to automate or shift production to lower-cost regions, risking job losses in labour-intensive factories.

- **Brick-and-mortar retail jobs:** The continuing migration to e-commerce and digital shopping has eroded foot traffic. Pre-pandemic, about 75 % of fashion purchases in the U.S. occurred in physical stores; in 2021 e-commerce already accounted for nearly 21 % of fashion retail sales. Projections from 2022 forecast that online retail would capture 25 % of global retail sales by 2025. As digital sales grow, the demand for in-store staff declines, though new roles in omni-channel fulfilment and personalised in-store experiences may offset some losses.

7.4 Profitability outlook: winners and losers

7.4.1 Market size and segment growth

Fashion remains a massive market, but growth and profitability diverge between segments:

- **Global market size:** The global apparel market was valued at US\$1.84 trillion in 2025, representing 1.63 % of world GDP. The U.S. apparel market alone was US\$365.7 billion. While these numbers highlight the sector's size, they mask slower growth. Research and Markets estimated the fast-fashion market at US\$163.21 billion in 2025 and projected it to reach US\$214.24 billion by 2029 (CAGR 7 %). By contrast, Fact.MR projected the sustainable apparel market at US\$120 billion in 2025, growing to US\$196 billion by 2035 with a 5 % CAGR and Fortune Business Insights estimated the broader sustainable fashion market to rise from US\$11.35 billion in 2025 to US\$22.49 billion by 2032 (CAGR 10.25 %). ThredUp's report valued the global second-hand apparel market at US\$227 billion in 2025, projected to grow at roughly 10 % CAGR and reach US\$367 billion by 2029. These figures show that sustainable and resale segments are expanding faster than traditional fast fashion.
- **Sportswear:** In the sportswear segment, the McKinsey report predicted that challenger brands (e.g., Deckers, Asics, New Balance, Vuori and Alo Yoga) would generate 57 % of the segment's economic profit by 2024—nearly triple their share in 2020. Challenger brands grew revenue 18 % per year between 2020 and 2024—14 percentage points faster than

incumbents—while incumbents' profitability declined. This suggests that agility, niche positioning and innovation (e.g., performance footwear, direct-to-consumer models) yield outsized returns compared with legacy giants.

- **Digital fashion marketplaces:** European online fashion marketplaces destroyed US\$700 million in economic profit in 2023, with losses expected to narrow to US\$400 million in 2024. Monthly active users on Chinese social-commerce platforms Douyin and Pinduoduo grew 52 % and 45 % respectively from June 2020 to June 2024, demonstrating strong audience growth, yet rising customer-acquisition costs eroded profitability: the cost to reach 1,000 users on Meta platforms increased 24 %, while the return on ad spend fell 44 %. These metrics illustrate the high volatility of digital-platform profits and signal consolidation ahead.

7.4.2 Who will win?

- **Challenger sportswear and purpose-driven brands:** Challenger sportswear brands' ability to innovate and directly connect with consumers positions them as clear winners. The expectation that they will capture more than half of sportswear economic profit reflects consumer shifts toward niche performance products and community-oriented branding. Purpose-driven brands

that integrate sustainability and transparency—such as Patagonia, Pangaia and Stella McCartney—build loyal customer bases willing to pay price premiums.

- **Second-hand and recommerce platforms:** With the global second-hand market growing at double-digit rates and comprising **9 %** of global apparel spending in 2024, platforms like ThredUp, Vestiaire Collective and The RealReal are poised to thrive. Resale appeals to price-sensitive consumers in a high-inflation environment and satisfies sustainability goals; since inventory is purchased from consumers, margins can be healthy when authentication and logistics are managed efficiently. In the U.S., online resale is projected to reach US\$40 billion by 2029.
- **Sustainable apparel and rental:** Though still relatively small, the sustainable fashion market's faster growth (CAGR 10–11 %) promises rising profitability for companies that invest early in circular design and low-impact materials. Rental models may also find success by maximising utilisation of high-quality garments; they attract younger consumers who value variety without ownership and older consumers who demand convenience.
- **AI-driven platforms and supply-chain technology providers:** The survey that found

50 % of fashion executives viewing product discovery as generative AI's main use and 82 % of consumers wanting AI help suggests high demand for AI platforms. Companies offering digital product passports, data-driven inventory optimisation or virtual try-on experiences will generate value by reducing waste and returns.

7.4.3 Who risks extinction?

- **Volume-driven fast-fashion producers:** Brands clinging to ultra-low-cost, high-volume production without addressing environmental or labour issues face regulatory risk and consumer backlash. The EU's proposed EPR requirements will force producers to pay for end-of-life costs, eroding margins. If automation and near-shoring accelerate, labour-intensive factories may close, causing job losses.
- **Legacy sportswear incumbents:** As the share of economic profit shifts toward challengers, giants like Nike and Adidas risk losing dominance unless they accelerate innovation and sustainability efforts. Their slower growth relative to challengers indicates vulnerability.
- **Digital marketplaces without clear value propositions:** Platforms that rely solely on traffic arbitrage or discounting may struggle. McKinsey notes that non-luxury e-commerce platforms face "existential business

model challenges” and must carve out a clear role in the fashion ecosystem. Rising customer-acquisition costs and shrinking return on ad spend make profitability elusive.

- **Retailers ignoring the silver generation:** The report notes that

72 % of total U.S. population wealth is held by people over 55. Brands ignoring this demographic and failing to create inter-generational appeal may miss significant revenue opportunities as younger consumers become more price sensitive

Table 17: Employment shift trends (2025)

Labour category	2025 statistics and trends	Winners/risks
Mass garment factory work	430 million people employed in fashion supply chains globally; Cambodian garment workers' minimum wage increased to US\$208 per month for 2025. Wage increases and automation may reduce manual sewing jobs.	Risk: Labour-intensive factories face automation and near-shoring; need to transition workers to skilled roles.
Retail sales associates	75 % of companies lack enough frontline employees; retail wages have increased 20 %+, turnover costs US\$2,000–10,000 per worker. LVMH plans to hire 22,000 workers by 2025.	Mixed: Demand persists for high-touch service and storytelling; however, foot traffic declines as e-commerce captures ~25 % of retail sales. Upskilling to provide personalised, sustainable advice is key.
Circular economy jobs	121–142 million people work in the circular economy; 77.6 million in Asia-Pacific; 65.2 million in repair and maintenance; 52 % informal	Winner: Growth in repair, reuse, recycling and second-hand trade offers job creation. Risk: Without formalisation, many roles remain low-pay and unsafe.
AI/data and digital roles	50 % of fashion executives see product discovery as the main	Winner: Demand for AI engineers, data scientists and digital marketing roles grows; but automation may

Labour category	2025 statistics and trends	Winners/risks
	use case for generative AI; 82 % of customers want AI help.	displace some creative/administrative jobs.
Sustainability compliance roles	63 % of brands are behind on 2030 decarbonisation goals, yet only 18 % consider sustainability a top risk	Winner: ESG compliance officers, traceability specialists and circular designers are needed to meet new regulations and consumer expectations.

Table 18: Profitability outlook for fashion segments (2025)

Segment	2025 market value	Profitability outlook
Fast fashion	Market valued at US\$163.21 billion; forecast to reach US\$214.24 billion by 2029 (CAGR 7 %).	At risk: Growth continues but slower than resale/sustainable; increasing regulation and consumer backlash threaten margins. Automation and EPR fees will squeeze profits.
Second-hand / resale	Global second-hand apparel market estimated at US\$227 billion in 2025, projected to grow to US\$367 billion by 2029 (~10 % CAGR); comprises 9 % of global apparel spend in 2024.	Winner: High growth and rising consumer acceptance; lower capital requirements and strong margins when logistics are efficient.
Sustainable apparel	Sustainable apparel market valued at US\$120 billion in 2025, expected to reach US\$196 billion by 2035 (CAGR 5 %). Sustainable fashion market overall	Winner: Strong consumer demand for eco-friendly products and regulatory tailwinds. Profitability depends on supply-chain

Segment	2025 market value	Profitability outlook
	expected to grow from US\$11.35 billion in 2025 to US\$22.49 billion by 2032 (CAGR 10.25 %).	innovation and price premiums.
Sportswear (challenger brands)	Challenger sportswear brands expected to generate 57 % of the segment's economic profit by 2024, up from 20 % in 2020; revenue growth of 18 % p.a. vs. incumbents' lower growth.	Winner: Agile brands with innovative products and community engagement outperform incumbents; incumbents risk eroding market share.
Digital marketplaces/e-commerce platforms	European online fashion marketplaces destroyed US\$700 million in economic profit in 2023; expected loss US\$400 million in 2024. Customer-acquisition costs up 24 %; return on ad spend down 44 %.	Risk: Over-saturated market and rising acquisition costs threaten margins. Platforms must specialise (e.g., sustainability curation, community) to survive.

Strategic Roadmap: Navigating the Fashion Reset

The fashion industry will enter the 2030s radically different from today. Macro forces—economic instability, climate risks and growing inequity—are colliding with technology (e-commerce, artificial intelligence, additive manufacturing) and changing values (ethical consumption, diversity, social justice). This “fashion reset” forces companies to overhaul business-as-usual and build resilient, sustainable

value chains that serve people and planet. Recent market forecasts show the scale of change:

- **Industry size and growth:** Future Market Insights projects the global apparel market to grow from US\ \$1.9 trillion in 2025 to US\ \$2.6 trillion by 2035 (CAGR 3.3 %). Casual wear holds 38 % of

spending and remains dominant, while sportswear and athleisure account for 18 %, illustrating consumers' shift toward comfort and wellness.

- **Sustainable apparel:** Fact.MR reports that the sustainable apparel market will expand from US\ \$120 billion in 2025 to US\ \$196 billion by 2035 (5 % CAGR). Organic cotton (38 % share) and apparel basics (42 % share) lead the market, signalling mainstream adoption of eco-friendly materials.
- **Fast fashion:** Research Nester estimates that fast fashion revenues could grow from US\ \$163.8 billion in 2025 to US\ \$436.5 billion by 2035 (10.3 % CAGR). Asia-Pacific is projected to command a 45.6 % share by 2035, reflecting the region's manufacturing dominance and rising middle class.
- **Second-hand and circular models:** Future Market Insights projects the second-hand apparel market to expand from US\ \$48.32 billion in 2025 to US\ \$138.90 billion by 2035 (11.1 % CAGR). Dresses and tops dominate resale (33 % share), and women account for nearly half of demand.
- **Technology integration:**
 - (a) The AI in fashion market, covering chatbots, recommendation engines and design tools, is expected to grow from

US\ \$2.92 billion in 2025 to US\ \$89.41 billion by 2035 (≈ 40.8 % CAGR).

- (b) **Smart clothing**—garments embedded with sensors and connectivity—could expand from US\ \$5.22 billion in 2025 to US\ \$51.69 billion by 2035 (25.77 % CAGR).
- (c) **3D-printed wearables** are projected to grow from US\ \$6.1 billion in 2025 to US\ \$13.2 billion by 2035 (10.2 % CAGR).
- (d) **Supply-chain technologies:** The warehouse robotics market is forecast to rise from US\ \$1.8 billion in 2025 to US\ \$6.6 billion by 2035 (13.8 % CAGR), with autonomous mobile robots representing 44.4 % of the market. In textile recycling, global sales are estimated to increase from US\ \$5.1 billion in 2025 to US\ \$7.0 billion by 2035.

These figures illustrate both the opportunities (sustainable materials, AI-enabled design, circular business models) and the risks (fast fashion's growth, unsustainable production). A strategic roadmap must help businesses act quickly while preparing for an uncertain long-term horizon.

The following sections outline actionable recommendations across five focus areas—Materials & Design, Supply Chain & Manufacturing, Business Model & Revenue,

Consumer Engagement & Culture, and Policy & Collaboration—organized into short term (1–3 years), mid term (3–7 years) and long term (8–10+ years) actions. Each recommendation aims to build financial and environmental resilience while supporting a just transition for workers and communities.

8.1. Materials & Design

The choice of materials and the way products are designed determines the bulk of fashion's environmental impact. Current trends show rapid growth in sustainable materials but also highlight the scale of the challenge.

8.1.1 Evidence base

- **Sustainable fabrics market:** The sustainable fabrics market is expected to grow from US\\$37.26 billion in 2025 to US\\$115.72 billion by 2035 (~12 % CAGR). Asia-Pacific already holds around 36.9 % share, and the clothing segment is projected to represent over 67.8 % by 2035.
- **Sustainable apparel consumption:** The sustainable apparel market's growth is driven by ethical consumerism, with organic cotton accounting for 38 % of fiber composition.
- **Textile recycling:** The textile recycling market is forecast to increase from US\\$5.1 billion in 2025 to US\\$7.0 billion by 2035. Recycled cotton is expected to represent 38 % of recycled materials, while

apparel waste constitutes 56 % of all recyclable inputs.

- **Emerging design technologies:** The 3D-printed wearables market (US\\$6.1 billion in 2025, growing to US\\$13.2 billion by 2035) and the smart clothing market (US\\$5.22 billion in 2025 to US\\$51.69 billion by 2035) underscore the potential of additive manufacturing and sensor-embedded fabrics.

8.1.2 Short-term (2025–2027)

10. **Substitute virgin materials with sustainable alternatives.** Prioritize organic cotton, recycled polyester and viscose from certified sources. With sustainable fabrics valued at US\\$37.26 billion in 2025, early adoption can secure supply and reduce exposure to volatile raw-material prices.
11. **Design for durability and recyclability.** Align product specifications with textile recycling requirements. Since apparel waste accounts for 56 % of recyclable inputs, designing garments for easier disassembly and fibre recovery will unlock future material loops.
12. **Pilot digital prototyping.** Implement 3D design software and virtual sampling to reduce sampling waste. Engage with emerging 3D-printed wearable suppliers—expected to generate US\\$6.1 billion in 2025—to

co-develop limited-edition products.

8.1.3 Mid-term (2028–2032)

- **Invest in bio-fabrication and innovative fibres.** Scale production of mycelium leather, lab-grown silk and biodegradable polymers. Research suggests the sustainable fabrics market could exceed US\ \$115 billion by 2035, indicating strong demand for low-impact fibres.
- **Embed circular design principles.** Adopt cradle-to-cradle certification, digital design files and modular construction to enable repair, reuse and recycling. Use digital product passports to encode material and manufacturing data (see Policy & Collaboration).
- **Expand additive manufacturing.** Use 3D printing not only for footwear midsoles (already commercialized by Adidas) but also for bespoke clothing and accessories. The 3D-printed wearables market's projected 10.2 % CAGR suggests this technology will become mainstream.

8.1.4 Long-term (2033–2035 and beyond)

- **Regenerative and climate-positive materials.** Develop fibres grown using regenerative agriculture, carbon-negative hemp and seaweed-based textiles. By 2035, the sustainable apparel market is forecast to reach US\ \$196 billion;

capturing this market requires leadership in regenerative supply.

- **On-demand and localized production.** Use micro-factories and digital knitting to produce garments after purchase, minimizing inventory and overproduction. Combined with 3D printing, on-demand production can reduce waste and meet local tastes.
- **Product-service systems.** Embed sensors and connectivity from the smart clothing sector (projected US\ \$51.69 billion by 2035) to enable product lifecycle tracking, maintenance alerts and usage-based business models.

8.2. Supply Chain & Manufacturing

The fashion supply chain spans raw-material extraction, spinning, weaving, dyeing, assembly, logistics and end-of-life management. Environmental impacts—energy use, water pollution and waste—are concentrated in manufacturing. Building resilience requires traceability, automation and decarbonization.

8.2.1 Evidence base

- **Textile recycling and waste:** The textile recycling market is projected to grow to US\ \$7.0 billion by 2035. Europe and North America lead adoption due to extended producer responsibility (EPR) schemes.
- **Warehouse robotics:** Future Market Insights expects the warehouse robotics market to increase from

US\ \$1.8 billion in 2025 to US\ \$6.6 billion by 2035 (13.8 % CAGR), with autonomous mobile robots (AMRs) representing 44.4 % of the market. Picking and placing robots account for 38.6 % of functional share.

- **E-commerce driven logistics:** Fast fashion revenues are predicted to grow sharply (10.3 % CAGR), while Asia-Pacific's share of the market reaches 45.6 %, implying increasing freight flows and labour-intensive production.
- **Energy transitions:** NewClimate Institute's 2025 Corporate Climate Responsibility Monitor found that fashion companies' current greenhouse-gas (GHG) reduction targets are insufficient; none were rated "reasonable" or "high" because most lacked concrete plans to electrify manufacturing. The report emphasises that electrification powered by renewable energy is critical to stay aligned with 1.5 °C pathways.

8.2.2 Short-term (2025–2027)

- **Enhance supply-chain transparency.** Implement digital traceability systems and data collection to map suppliers and material flows. Extended producer responsibility frameworks demand reporting on product volumes and waste, aligning data systems now will reduce compliance costs.
- **Participate in textile recycling networks.** Collaborate with

recyclers like Renewcell, Infinited Fiber Company and Evrnu to scale chemical recycling of cellulose and polyester. Introduce take-back schemes and partnerships with waste management providers.

- **Initiate energy audits and renewable procurement.** Commit to renewable electricity for manufacturing; companies like H&M have begun to procure renewables but lack electrification plans. In the next three years, brands should set interim targets to reduce coal and biomass dependence.
- **Explore warehouse automation.** Invest in scalable robotics for picking and sorting to handle e-commerce growth. The robust 13.8 % CAGR in warehouse robotics suggests early movers will gain efficiency.

8.2.3 Mid-term (2028–2032)

- **Scale automation and AI.** Integrate AMRs and automated guided vehicles to handle intralogistics; combine with AI-driven forecasting to optimize inventory. Robotic share of warehouse operations is expected to increase to ~50 % as costs fall.
- **Deploy low-carbon manufacturing technologies.** Electrify knitting, dyeing and finishing processes using renewable energy. Replace coal boilers with electric heating and adopt waterless dyeing.

Develop on-site solar and battery storage to stabilise energy supply.

- **Localize and near-source production.** Diversify manufacturing to reduce geopolitical risks and shorten transit times. Use regional micro-factories with digital printing and assembly to serve local markets; by 2030, automated micro-factories could produce high-margin customization.
- **Implement digital product passports (DPP) and EPR compliance.** The EU's digital product passport was approved in 2024 and prioritized apparel for implementation. Delegated acts for textiles are expected in 2027, with mandatory implementation from 2027–2029. Australia expects to follow these rules. Preparing supply chains to track material content and environmental data will be essential.

8.2.4 Long-term (2033–2035 and beyond)

- **Fully electrify and decarbonize manufacturing.** Achieve fossil-free operations through electrification, heat pumps and renewable energy procurement. Develop circular factories that use recycled water and zero hazardous chemicals.
- **Build closed-loop ecosystems.** Establish infrastructure to collect, sort and recycle post-consumer textiles. By 2035, integrate chemical recycling into mainstream supply,

enabling the textile recycling market to grow to US\ \$7.0 billion.

- **Use AI-driven predictive maintenance and robotic workforces.** Combine sensors, machine vision and predictive analytics to minimize downtime, reduce waste and increase throughput.
- **Ensure a just transition.** Support workers through training and social protections. Collaborate with unions and governments to reskill labour for automation and new circular tasks.

8.3. Business Model & Revenue

Traditional business models built on linear “make–sell–discard” cycles and high volumes are unsustainable. The fashion reset requires exploring revenue streams such as resale, rental, digital fashion and AI-enabled personalization.

8.3.1 Evidence base

- **Second-hand apparel:** Growing from US\ \$48.32 billion (2025) to US\ \$138.90 billion (2035), this market's double-digit growth reflects consumer demand for affordability and sustainability. Women account for 49.4 % of second-hand demand and dresses/tops comprise 33 % of products.
- **Fast fashion:** Fast fashion revenues are forecast to reach US\ \$436.5 billion by 2035. Conventional models still hold

85.7 % share by 2035, underscoring the need to shift consumption patterns.

- **AI-driven fashion:** AI in fashion is expected to surge to US\ \$89.41 billion by 2035. North America is projected to capture 32 % share and Asia-Pacific 27 %. AI is used for personalised recommendations, inventory management and trend forecasting.
- **Smart clothing:** The smart clothing market is projected to reach US\ \$51.69 billion by 2035. Applications span fashion & entertainment, healthcare, sports and military.

8.3.2 Short-term (2025–2027)

- **Launch resale and rental programs.** Partner with resale platforms (thredUP, Poshmark) or build in-house resale to capture part of the second-hand market's rapid growth (11.1 % CAGR). Rental models can lengthen product life and create subscription revenue.
- **Expand direct-to-consumer (D2C) channels.** Digital commerce platforms allow richer data collection and customer loyalty. Use AI to personalize product recommendations and optimize pricing.
- **Pilot AI-powered design and demand forecasting.** Use AI tools to analyse trends, simulate prototypes and manage inventory.

With the AI in fashion market estimated at US\ \$2.92 billion in 2025, early adoption can reduce overproduction and markdowns.

8.3.3 Mid-term (2028–2032)

- **Diversify into digital fashion and the metaverse.** Create virtual garments for gaming, social media and augmented reality try-ons. While the digital fashion market is still emerging, related segments (smart clothing and AI) show strong growth. Digital goods have near-zero material footprint and can boost brand engagement.
- **Develop product–service systems.** Sell clothing as a service, including maintenance, repair and recycling. Integrate sensors (as in smart clothing) to monitor usage and tailor services.
- **Rebalance portfolios toward sustainable collections.** Phase out low-margin fast fashion lines and invest in high-quality, timeless pieces. The sustainable apparel market's growth to US\ \$196 billion by 2035 indicates demand for such products.

8.3.4 Long-term (2033–2035 and beyond)

- **Generate revenue from data and circular services.** Use digital product passports and customer data to offer repair, resale and recycling. Monetize insights into garment use (with customer consent) to inform design and marketing.

- **Adopt AI-driven autonomous retail.** Deploy AI agents as stylists, chatbots and supply planners. The AI in fashion market's projected 40.8 % CAGR suggests AI will underpin nearly every aspect of the value chain.
- **Invest in regenerative finance models.** Explore carbon credits, biodiversity credits and impact investment funds to finance regenerative practices. Collaborate with investors to link financial returns to environmental and social outcomes.
- **Smart clothing and wearables:** The smart clothing market's projected US \$51.69 billion value in 2035 shows rising interest in data-driven garments. Sensors embedded in clothing enable health monitoring and personalised services.
- **Circular transparency:** Second-hand platforms have adopted live shopping and digital passports to build trust. EU regulations prohibit destruction of unsold goods and require eco-design features.

8.4. Consumer Engagement & Culture

Consumers increasingly demand transparency, inclusivity and participation. The coming decade will see a shift from passive consumption to active co-creation.

8.4.1 Evidence base

- **Digital product passports:** The European Commission mandated that by 2030 every textile product sold in Europe must contain a digital product passport. Delegated acts are expected in 2027, with implementation beginning around 2027–2029.
- **Mobile-first commerce:** Research indicates that approximately 75 % of students purchase fashion through mobile devices, reflecting a generational shift to digital shopping.

8.4.2 Short-term (2025–2027)

- **Strengthen transparency and storytelling.** Communicate provenance, material composition and environmental impact using digital labels. Educate consumers about care, repair and recycling.
- **Build inclusive and diverse brand cultures.** Represent varied body types, ethnicities and gender identities in marketing. Engage local artisans and craft communities.
- **Use social commerce and live shopping.** Live shopping features on resale platforms and social networks drive engagement.

8.4.3 Mid-term (2028–2032)

- **Implement digital product passports at scale.** Provide scannable QR codes that reveal product lifecycle data and guide consumers toward repair and

resale options. Align with EU requirements that all textiles sold in Europe must carry a DPP by 2030.

- **Adopt AR/VR experiences.** Use augmented reality for virtual try-ons, digital showrooms and custom styling. Integrate with gaming platforms and the metaverse to reach younger audiences.
- **Co-create with communities.** Invite consumers to participate in design decisions and supply-chain activism. Offer customizing tools that allow individuals to choose fabrics, colours and fits.

8.4.4 Long-term (2033–2035 and beyond)

- **Create wearable ecosystems.** Combine smart clothing, AI assistants and health data to offer holistic services (fitness coaching, medical alerts). This will be enabled by the **US \ \$51.69 billion smart clothing market**.
- **Foster circular lifestyles.** Provide incentives for consumers to return garments, repair items and adopt shared ownership. Use gamification to reward sustainable behaviours.
- **Nurture cultural change through education.** Support fashion literacy programs in schools and communities, emphasising climate impacts, labour rights and cultural heritage. Encourage slower consumption and appreciation of craftsmanship.

8.5. Policy & Collaboration

Effective climate action and social justice in fashion require supportive policy and multi-stakeholder collaboration. Regulations are tightening, but gaps remain.

8.5.1 Evidence base

- **Extended Producer Responsibility (EPR):** In 2025 only Hungary, Latvia, France and the Netherlands had textile EPR laws in force. The EU Waste Framework Directive requires Member States to establish separate textile waste collection by January 1 2025. Amendments aiming to harmonize EPR rules are under discussion.
- **Digital Product Passport:** The Ecodesign for Sustainable Products Regulation (ESPR) approved in June 2024 introduced a digital product passport for textiles. The European Commission's 2025–2030 work plan identifies apparel as a top-priority product group, with delegated acts expected in 2027. Fashion Journal reports that by 2030 all textile products for sale in Europe must have a DPP and that implementation will begin from 2027.
- **Climate strategies:** NewClimate Institute's 2025 Corporate Climate Responsibility Monitor found that fashion companies' climate strategies lack credibility—no company was rated “reasonable” or “high,” and only Adidas, H&M and

Inditex received “moderate” ratings. The report stresses the need for electrification of manufacturing processes powered by renewable energy and warns against false solutions such as biomass.

8.5.2 Short-term (2025–2027)

- **Monitor and comply with emerging regulations.** Establish cross-functional teams to track EU, U.S. and other regional policies on EPR, digital passports, eco-design and forced labour. Align product development and supply-chain data collection to meet new reporting requirements.
- **Participate in policy formation.** Join industry coalitions and standard-setting initiatives to advocate for equitable regulations that support small producers and global south suppliers.
- **Collaborate on collective infrastructure.** Work with competitors to fund recycling facilities, renewable energy projects and labour retraining programs.

8.5.3 Mid-term (2028–2032)

- **Scale EPR and take-back systems globally.** Support legislation that mandates producer responsibility and harmonizes rules across markets. Use data gathered from digital product passports to finance recycling and waste management.
- **Adopt science-based targets and just transition frameworks.** Set

absolute emission reduction targets and commit to electrification. Work with unions, governments and NGOs to ensure worker protections and access to green jobs.

- **Implement mandatory due-diligence and transparency laws.** Support policies requiring disclosure of supply-chain emissions, labour conditions and biodiversity impacts. Ensure smaller suppliers receive capacity-building support.

8.5.4 Long-term (2033–2035 and beyond)

- **Institutionalize circular policy frameworks.** Advocate for global agreements on textile recycling quotas, material passports and import bans on unsustainable goods. Build governance structures that include workers, communities and indigenous peoples.
- **Invest in climate adaptation and social resilience.** Collaborate with governments to develop infrastructure that protects garment workers from extreme heat, floods and economic shocks. Provide social protection and retraining programs.
- **Champion equitable trade and investment.** Push for fair trade agreements that recognise environmental and labour standards. Redirect investment toward regenerative agriculture, renewable energy and local manufacturing

Fashion's Defining Decade: Statistical Outlook (2025–2035)

The years between 2025 and 2035 will be pivotal for the fashion industry. Analysts describe this period as a “defining decade” because the industry must transition from the linear, throw-away model of the 2010s to one that is circular, ethical and low-carbon. This section uses data and examples to paint a data-driven picture of where fashion is headed.

9.1 Market size and growth trajectories

9.1.1 Sustainable and circular fashion markets

Sustainable fashion has moved from niche to mainstream. Fortune Business Insights estimates that the global sustainable fashion market was worth US\$10.40 billion in 2024 and will grow to US\$11.35 billion in 2025 and US\$22.49 billion by 2032. Even though the forecast only runs to 2032, extrapolating the 10.25 % compound annual growth rate (CAGR) suggests the market could double again by 2035.

Circular fashion – where garments are designed for reuse or recycling and kept in circulation as long as possible – is smaller but growing faster. Roots Analysis values the circular fashion market at US\$6.78 billion in 2024 and projects it to US\$7.48 billion in 2025 and US\$18.42 billion by 2035, implying a 9.43 % CAGR. The same report notes that 92 million tonnes of textiles are wasted globally every year, a

statistic that underscores why circular business models are essential.

9.1.2 Resale and recommerce boom

Resale platforms have become the engine of circularity. A 2025 report from Boston Consulting Group (BCG) and Vestiaire Collective surveyed 7 800 users and found that second-hand items already make up 28 % of their wardrobes (30 % for clothing and 40 % for handbags). For Gen Z, second-hand clothing accounts for 32 % of their wardrobes, rising to 66 % in the U.S. and 39 % in Europe.

BCG projects that the global resale market – currently around US\$210–220 billion – will grow 10 % annually and could reach US\$360 billion by 2030, expanding three times faster than the primary market. These figures suggest that by 2035 resale could represent roughly one-third of fashion transactions, aligning with the vision of a circular culture.

9.1.3 Modest/halal fashion

The growth of sustainable fashion is mirrored in the modest or halal fashion segment. DinarStandard's *State of the Global Islamic Economy 2023/24* report, summarised by DHL, shows that Muslim consumer spending on apparel and footwear grew 4.8 % between 2022 and 2023 and is projected to reach US\$428 billion by 2027 – a CAGR of 6.1 %. This spending surge is prompting mainstream brands to integrate modest

lines and suggests that halal-certified fashion could account for a sizeable share of the market by 2035.

9.1.4 Digital and AI-enabled fashion

Technology is altering how consumers shop and interact with fashion. BCG’s 2025 resale study highlights the emergence of digital product passports (DPPs) to authenticate garments and track their lifecycle, yet 65 % of respondents had never heard of DPPs. This gap represents both a challenge and an opportunity: widespread adoption of DPPs by 2035 could ensure supply-chain transparency and facilitate circularity.

9.1.5 Corporate sustainability commitments

Major brands are setting ambitious sustainability targets. H&M Group aims for 100 % of its materials to be recycled or sustainably sourced by 2030 and 30 % recycled materials by 2025. In 2024 the company already achieved 29.5 % recycled materials and 89 % recycled or sustainably sourced materials. Many other apparel giants (e.g., Patagonia and Nike) have similar goals, signalling that by 2035 sustainable materials will be the norm.

Table 19 – Market growth and projections (selected segments)

Segment	2024 value	2025 value/projection	2030–2035 projection	Notes
Sustainable fashion market	US\$10.40 billion (2024)	US\$11.35 billion (2025)	US\$22.49 billion by 2032 (10.25 % CAGR) – extrapolated to ≈US\$30 billion by 2035	Ethical apparel and accessories produced with environmentally friendly materials and practices.
Circular fashion market	US\$6.78 billion (2024)	US\$7.48 billion (2025)	US\$18.42 billion by 2035	Focuses on recycling, renting and modular design; growth driven by regulation and consumer awareness.
Global resale market	~US\$210–220 billion	–	US\$360 billion by 2030 (10 % CAGR) –	Growing three times faster than the primary

Segment	2024 value	2025 value/projection	2030–2035 projection	Notes
	(2025 baseline)		extrapolated to >US\$500 billion by 2035	market; second-hand goods already constitute 28 % of surveyed wardrobes.
Modest/halal fashion spending	–	US\$428 billion by 2027	>US\$500 billion by early 2030s (6.1 % CAGR)	Reflects Muslim consumer spending; halal norms increasingly include ethical labour and environmental standards.
Regenerative textiles	US\$6.2 billion (2025 value)	–	~US\$12 billion by 2030 (doubling)	Includes fabrics from regenerative agriculture and novel materials (e.g., mushroom-based leather).

9.2 Environmental impact and decarbonization

9.2.1 Emissions baseline and trajectory

The fashion industry's climate footprint is substantial. McKinsey's Fashion on Climate report estimates that the sector produced 2.1 billion metric tons of greenhouse-gas (GHG) emissions in 2018, about 4 % of global emissions. Without major changes, emissions could still hover around 2.1 billion

tonnes by 2030 – far above the 1.1 billion tonnes needed to align with the 1.5 °C pathway.

More recent data from the Apparel Impact Institute's 2025 report paints a mixed picture: the apparel sector's emissions grew 7.5 % in 2023, reaching 944 million tonnes of CO₂-equivalent (almost 2 % of total global emissions). The surge was attributed to overproduction and heavy use of virgin polyester, which now constitutes 57 % of global fiber production.

The report also highlights progress: brands like H&M reduced Scope 3 emissions by 23 % between 2019 and 2024, and suppliers like Shenzhou Group cut Scope 1 and 2 emissions by 24 % from 2022 to 2024. This demonstrates that decarbonization is possible when investments are made in renewable energy and efficiency.

9.2.2 Waste and recycling

Textile waste remains a critical challenge. EPA data show that in 2018 (latest US data), textiles accounted for 17 million tons of municipal solid waste, with 14.7 % being recycled and 11.3 million tons landfilled. While this dataset is dated, it provides a baseline against which upcoming EU and US policies can be measured. Globally, around 92 million tonnes of textiles are wasted each year, and less than 1 % is recycled back into clothing.

Circular design can drastically reduce waste. Extending a garment's life by nine months cuts its carbon footprint by 30 %. Regenerative cotton farms in India and the U.S. increased soil carbon by 20 % over three years and reduced water use by 25 % and pesticide use by 80 %. These regenerative practices are scaling; regenerative textiles were worth US\$6.2 billion in 2025 and are expected to double by 2030.

9.2.3 Policy landscape and regulation

Policy is rapidly catching up to environmental realities. In October 2025, the EU revised its Waste Framework Directive, introducing mandatory extended producer responsibility (EPR) for textiles. Producers selling textiles into the EU must pay fees to finance waste collection, sorting and recycling, with fees scaled according to a product's circularity and sustainability. The directive entered into force on 16 October 2025, and Member States have 20 months to implement national EPR schemes. The rules apply to clothing, footwear, accessories and household textiles, including online sellers.

Regulatory momentum extends beyond Europe. Countries such as France, the Netherlands and Sweden have introduced or proposed bans on destroying unsold garments and have mandated textile collection schemes. Carbon pricing and import tariffs linked to environmental performance are also being debated. By 2030, the EU aims to require all textile products sold in Europe to be recyclable and to contain recycled content. Such policies will raise the cost of unsustainable materials, accelerating the shift to circular business models.

Table 20 – Environmental impact and regulation statistics

Indicator	Baseline	Relevance to 2030–2035 goals
Fashion sector GHG emissions	2.1 billion t CO ₂ -e in 2018 (≈4 % of global total); 944 million t CO ₂ -e in 2023 with a 7.5 % YoY increase	Emissions must be halved to ~1.1 billion t by 2030 to align with the 1.5 °C pathway.
Virgin polyester share	Polyester accounts for 57 % of global fiber production, driving emissions and microplastic pollution	Switching to recycled or bio-based fibers and reducing overall production are critical to meet climate goals.
Regenerative cotton farming outcomes	Soil carbon up 20 %, water use down 25 %, pesticide use down 80 % in regenerative farms	Demonstrates the potential for agriculture to become regenerative, sequestering carbon and reducing inputs; scaling these practices can cut upstream emissions.
Textile waste generation	17 million tonnes of textile waste in US MSW (2018); 14.7 % recycling rate; globally 92 million tonnes wasted annually	Policies such as EU EPR (2025) aim to dramatically increase collection and recycling rates; future targets aim for 30–50 % recycling by 2030.
Consumer behaviour – sustainable goods	67 % of UK/German consumers consider the use of sustainable materials important when purchasing; 63 % care about brands' sustainability promotion; 46 % globally purchased at least one sustainable item in April 2023; 27 % are willing to pay a premium for sustainability	Rising consumer expectations will pressure brands to adopt transparent supply chains and circular business models; by 2035 a majority of consumers may demand sustainability as a baseline.
Willingness to pay more for sustainable goods	60 % of consumers would pay more for products packaged sustainably; PwC survey shows 70 % are willing to pay more for sustainably produced goods	Indicates strong support for sustainable brands; suggests that purpose-driven companies could enjoy higher margins by 2035.

Indicator	Baseline	Relevance to 2030–2035 goals
EU regulatory timeline	Revised Waste Framework Directive with textile EPR entered into force on 16 Oct 2025, requiring member states to implement schemes within 20 months	The first wave of textile EPR programmes is expected across Europe by mid-2027, accelerating circular infrastructure and raising costs for fast fashion.

9.2.4 Profitability through purpose

One of the most persistent myths is that sustainability undermines profitability. Evidence suggests the opposite. The Fortune Business Insights report highlights that despite higher costs, consumer demand and brand loyalty are increasing; the sustainable fashion market is growing at over 10 % per year. At the same time, investors are funnelling capital into circular fashion, regenerative materials and AI-enabled supply-chain traceability. Companies that proactively invest in these areas enjoy healthier profit margins, reduce regulatory risk and gain competitive advantage.

The resale boom offers an illustrative example. By 2030, resale could account for more than US\$360 billion in sales. Participating in recommerce allows brands to earn revenue from existing inventory multiple times, reduce inventory risk and gather valuable data about consumer preferences. BCG’s survey found that 40 % of consumers buy second-hand goods for the variety and uniqueness and 40 % cite sustainability as a key motivator, indicating that ethical appeal and profit are aligned.

Modest fashion illustrates another profitable intersection of ethics and commerce. Muslim consumer spending is projected to reach US\$428 billion by 2027; brands that offer halal-certified garments made with fair labour and sustainable materials can tap into a rapidly growing market. Importantly, halal certification is broadening to encompass ethical labour standards and eco-friendliness, so companies that adopt circular practices may receive dual benefits.

9.2.5 Changing consumer mindset

Evidence indicates that consumer attitudes towards sustainability and ethics are shifting rapidly. A McKinsey survey across more than 2 000 UK and German consumers found that 67 % of respondents consider the use of sustainable materials important and 63 % consider a brand’s promotion of sustainability important. Deloitte’s ConsumerSignals survey reported that 46 % of consumers across 23 countries bought at least one sustainable product in April 2023 and 27 % were willing to pay a premium. Additional research suggests 60 % of consumers would pay more for sustainably packaged goods and

70 % are willing to pay more for sustainably produced goods.

Generation Z (born after 1997) is particularly committed to circular and ethical consumption. The BCG/Vestiaire study found that 32 % of Gen Z wardrobes are second-hand (with higher rates in the U.S. and for handbags). Moreover, 80 % of Gen Z respondents use resale as a way to discover new brands. This behaviour signals a fundamental shift away from “wear once” culture towards renting, thrifting and recommerce.

By 2035, Gen Z and Gen Alpha will make up the majority of fashion consumers. Their deep-rooted climate and social justice concerns suggest that ethical credentials will be a prerequisite rather than a differentiator. Brands with transparent supply chains, regenerative materials and fair labour practices will likely dominate the market.

9.2.6 Looking ahead to 2030–2035

Based on current trajectories and regulatory commitments, the fashion industry of 2035 may look dramatically different from the status quo of the early 2020s.

- **Circular culture becomes mainstream.** With resale projected at hundreds of billions of dollars and circular fashion growing at almost 10 % annually, buying second-hand or renting may become as common as buying new. Governments are instituting EPR schemes and waste-collection laws, while digital product

passports make it easy to track garments and ensure recovery.

- **Halal/ethical norms integrate with sustainability.** The projected US\$428 billion modest fashion market by 2027 will likely continue growing; halal certification is expanding to include fair labour, animal welfare and environmental stewardship. By 2035 mainstream brands may offer halal-certified collections alongside other lines.
- **Decarbonized and regenerative supply chains.** To align with the 1.5 °C pathway, the industry must reduce emissions to ~1.1 billion tonnes by 2030. This requires widespread renewable energy adoption, regenerative agriculture (e.g., cotton farms that sequester carbon and cut pesticide use), and increased recycling. The success stories cited by the Apparel Impact Institute—such as suppliers cutting emissions by 24–35 %—show that rapid decarbonization is possible.
- **Minimal waste through policy and design.** EU-wide EPR for textiles (effective 2025–2027) will likely spur similar schemes globally. By 2035, many countries may require textiles to be recyclable and contain recycled content, while bans on landfilling textiles will drive investment in recycling infrastructure. Innovations in fibre-to-fibre recycling and compostable clothing (e.g., Adidas and Pangaia trials mentioned in

Earthreminder) will reduce dependence on virgin fibres.

- **Profitability through purpose and technology.** Companies that embrace sustainability are already outperforming their less responsible peers. AI tools, digital wardrobes and agents will provide styling recommendations that minimise

wardrobes' carbon footprints.

Transparent digital platforms can help consumers verify claims and reinforce trust. Investors' growing appetite for green ventures means that circular fashion startups will have access to capital, further accelerating innovation.

9.3 Conclusion

Statistics from 2024–2025 clearly demonstrate that the fashion industry is entering a transformative decade. Markets for sustainable and circular fashion are expanding at high double-digit rates; resale is poised to overtake parts of the conventional market; and consumers—especially younger generations—are demanding ethics and sustainability as standard. Meanwhile, policy instruments such as the EU's extended producer responsibility scheme are ushering in a new regulatory era, and early evidence shows that decarbonization and

regenerative practices can reduce emissions dramatically.

If the industry achieves the decarbonization target of halving emissions by 2030 and scales circular models to capture 30–50 % of market share, fashion could become a poster child for the green economy. Failing to act, however, will lock in unsustainable production patterns and jeopardize the sector's future viability. The next decade is thus both an urgent call to action and an unprecedented opportunity to reshape fashion into a circular, halal/ethical and tech-augmented industry.