

CIRCULAR BUSINESS MODELS

Trainer Handbook



VERDEinMED

Interreg
Euro-MED



Co-funded by
the European Union

PREFACE

This document aims to develop a skilled workforce through knowledge sharing, fostering experienced professionals in the Textile and Clothing Industry with a focus on circular strategies and textile waste management. It is a key outcome of the VERDEinMED project, specifically Activity 1.3 – Train the Trainers, which is part of WP1: Reforming the Industry through Sustainable and Circular Practices.

This document aligns with the theme “Circular Business Models”, exploring strategies, frameworks, and practical approaches for transitioning from linear production systems to regenerative and resource-efficient economic models. The information is organized by:

1. Overview of circular economy;
2. The path towards a circular textile sector in Europe;
3. Principles and strategies of circular economy;
4. Business model strategies for circularity;
5. Case studies and best practices.



CONTENT

PREFACE	2
CONTENT	3
FIGURES	4
Overview of Circular Economy	5
The Path Towards a Circular Textile Sector in Europe.....	8
Principles and Strategies of Circular Economy	13
Business Model Strategies for Circularity.....	19
Case Studies and Best Practices.....	24
Conclusion	33

FIGURES

Figure 1 - Infographic explaining the circular economy model	7
Figure 2 - The path towards a circular textile sector in Europe	9
Figure 3 - Circular Fashion System Commitment	14
Figure 4 - The different stages that R-Strategies can be implemented	18
Figure 5 - Circular business model categories	21
Figure 6 - Main circular business models in the global fashion market	22

Overview of Circular Economy

The circular economy represents a transformative model of production and consumption that emphasises sustainability and efficiency, in contrast to the traditional linear “take–make–dispose” model. In a linear economy, resources are extracted, transformed into products, and discarded after use, leading to increased waste, resource depletion, and environmental harm. By contrast, the circular economy seeks to minimise waste and reduce resource extraction by keeping materials, products, and resources in circulation for as long as possible. This model not only conserves resources but also reduces environmental impact, aiming to create a sustainable balance between industry, consumers, and the planet.

Although the circular economy is relatively new as a formalised concept, its roots can be traced back several decades. In the 1970s, researchers such as Walter Stahel and Geneviève Reday introduced the idea of a “loop economy”, which focused on extending product lifecycles and closing production loops to reduce waste and promote resource efficiency. Their work aligned with the emerging environmental movement of the time, which increasingly prioritised sustainability, conservation, and a long-term approach to resource management. In the early 2000s, the Cradle-to-Cradle philosophy advanced this idea further. Developed by Michael Braungart and William McDonough, and outlined in their book *Cradle to Cradle: Remaking the Way We Make Things*, this approach proposed designing materials and products that could be continually reused within either biological or technical cycles, thereby effectively eliminating waste. The Cradle-to-Cradle framework not only transformed approaches to product design but also inspired industries to reconsider the potential for the continual reuse of materials.

Building on these foundational ideas, the Ellen MacArthur Foundation, established in 2010, has played a crucial role in advancing and popularising the circular economy. The foundation has expanded upon earlier concepts, framing the circular economy as a holistic approach that addresses economic, social, and environmental challenges by reshaping traditional perspectives on design, production, and consumption. Through extensive research and collaboration with businesses and policymakers, the foundation has helped to bring the circular economy into mainstream economic discourse, advocating its adoption as a pathway towards a more sustainable and resilient global economy.

Together, these historical influences have shaped the vision of a modern circular economy, combining ecological awareness with economic resilience.

Defining the circular economy requires an understanding of its multifaceted approach to sustainability and resource management.

ELLEN MACARTHUR FOUNDATION

ISO 59004:2024

EUROPEAN PARLIAMENT

The circular economy is an economic system designed to eliminate waste, keep products and materials in continuous use, and regenerate natural systems.

This definition emphasizes a closed-loop cycle where resources are not discarded but reused through maintenance, reuse, refurbishment, recycling and composting.

The circular economy is a system focused on maintaining a “circular flow of resources”, which involves cycling resources across technical and biological systems, thereby sustaining their value, and contributing to sustainable development.

Development that meets the environmental, social and economic needs of the present without compromising the ability of future generations to meet their own needs.

The circular economy is a production and consumption model that emphasizes sharing, leasing, reusing and repairing to extend product lifecycles.

In practice, it implies reducing waste to a minimum. When a product reaches the end of its life, its materials are kept within the economy wherever possible thanks to recycling. These can be productively used again and again, thereby creating further value.

Across these definitions, common themes emerge, including a commitment to resource circulation, waste minimisation, and the creation of value from used resources. Together, these definitions provide a comprehensive framework for implementing circular practices across industries, aiming to achieve an economy that aligns environmental sustainability with economic viability (Figure 1).

THE CIRCULAR ECONOMY MODEL:

LESS RAW MATERIAL, LESS WASTE, FEWER EMISSIONS



Figure 1 - Infographic explaining the circular economy model. Source: European Parliament Research Service

The Path Towards a Circular Textile Sector in Europe

The textile sector is among the most resource-intensive industries, requiring significant quantities of water, energy, and raw materials, while also generating substantial waste and pollution. Addressing these impacts has become an urgent priority, and the European Union (EU) has responded with a series of strategic actions aimed at embedding circularity within the textile industry. These efforts span nearly a decade (Figure 2), underscoring the importance of the transition towards a sustainable and circular economy for textiles. Through carefully designed action plans and regulations, the EU seeks to transform the textile sector into one that prioritises resource efficiency, durability, and sustainability.

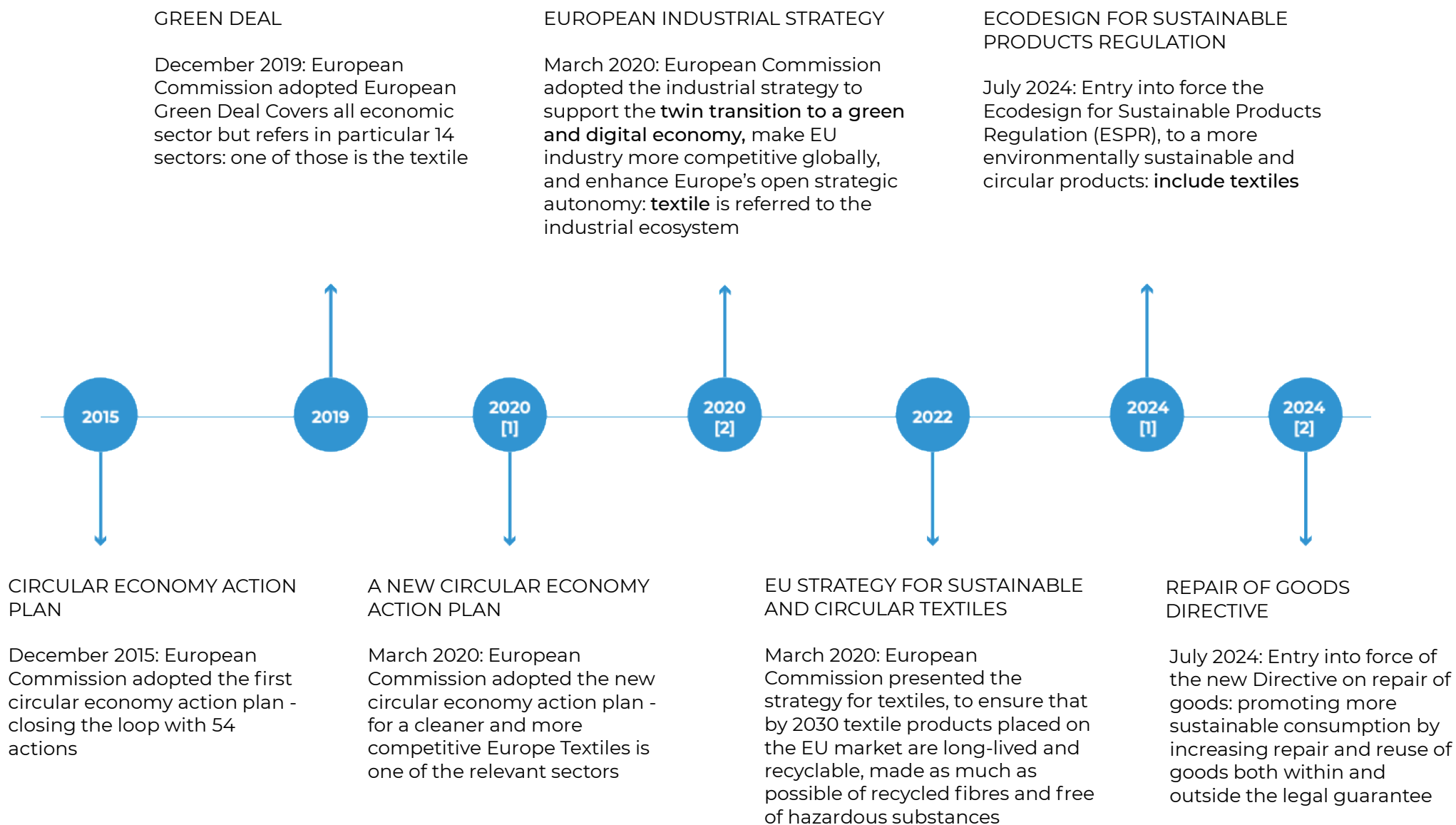


Figure 2 - The path towards a circular textile sector in Europe

THE 2015 CIRCULAR ECONOMY ACTION PLAN: CLOSING THE LOOP

In 2015, the EU launched its first Circular Economy Action Plan, marking the beginning of a shift from linear “take–make–dispose” models towards circularity across European industries. The plan set out a roadmap comprising 54 key actions aimed at increasing recycling, reducing waste, and enhancing resource efficiency. Recognising that textiles, alongside sectors such as electronics and plastics, were significant contributors to waste and pollution, the plan included specific strategies to promote sustainable textile production and consumption.

This initial action plan also laid the foundation for more sustainable product design by encouraging recycling processes, circular business models, and resource recovery. Its objectives initiated a series of policies that would later form the basis of Europe’s transition towards a circular economy.

THE 2019 EUROPEAN GREEN DEAL: A HOLISTIC APPROACH TO SUSTAINABILITY

The European Green Deal, launched in 2019, expanded upon these objectives with an ambitious goal: to make the EU climate neutral by 2050. The Green Deal identified textiles as one of fourteen key sectors for the implementation of sustainable practices. To address the environmental impact of textiles, it proposed measures targeting every stage of a product’s lifecycle, from raw material sourcing and production to consumption and end-of-life management.

The Green Deal promoted a new economic model that integrates sustainability at every level, not only in production but also through the encouragement of responsible consumption and improved waste management practices. Within the textile sector, this approach emphasised enhanced product durability, recyclability, and eco-design, ensuring that garments and fabrics have a minimal environmental impact from their inception.

THE 2020 CIRCULAR ECONOMY ACTION PLAN AND EUROPEAN INDUSTRIAL STRATEGY: THE TWIN TRANSITION

In 2020, the EU reinforced its circular economy ambitions through the introduction of a new Circular Economy Action Plan alongside the European Industrial Strategy. This plan centred on the “twin transition” — moving towards both a green and a digital economy — and placed the textile sector at the core of this transformation. By emphasising sustainability and digitalisation, the EU aimed to modernise the textile industry, enhancing its competitiveness while significantly reducing its environmental footprint.

The plan introduced policies designed to make textile products longer-lasting, more repairable, and recyclable. It encouraged businesses to adopt circular practices, such as using recycled materials, minimising textile waste, and incorporating circular design principles. In addition, the plan established economic incentives for sustainable practices, including improved access to funding and support for research into eco-friendly textile innovations.

THE 2022 EU STRATEGY FOR SUSTAINABLE AND CIRCULAR TEXTILES: AMBITIOUS GOALS FOR 2030

The EU Strategy for Sustainable and Circular Textiles, introduced in 2022, is a specialised plan focused entirely on transforming the textile industry by 2030. This strategy envisions a sector in which products are designed for durability, recyclability, and safety, are free from hazardous substances, and are manufactured with minimal environmental impact.

The 2022 strategy sets out specific targets, including improving product design standards, ensuring textiles are created with recyclability in mind, and prioritising the use of sustainable raw materials. It also emphasises the need to enhance textile recycling infrastructure and adopt circular business models, such as rental and resale platforms, to extend the lifecycle of textiles. Achieving these goals requires increased collaboration across all levels of the supply chain, from manufacturers and retailers to consumers.

THE 2024 SUSTAINABLE PRODUCT DESIGN REGULATIONS AND REPAIR DIRECTIVE

Looking ahead, the EU has set two landmark regulatory milestones for 2024: the Sustainable Product Design Regulations and the Repair Directive. These initiatives are pivotal to realising the EU's circular economy vision.

The Sustainable Product Design Regulations aim to establish uniform eco-design standards for textiles. Under these regulations, products will be required to prioritise longevity, reparability, and recyclability. Textiles will be held to stringent criteria, encouraging manufacturers to adopt materials and processes that support circularity.

The Repair Directive is set to transform consumer rights and practices. It mandates that manufacturers provide repair options even beyond warranty periods, making repairs both affordable and accessible. By shifting the focus from disposal to repair, the directive seeks to significantly extend the lifespan of textiles, thereby reducing waste and resource consumption.

These 2024 regulations represent a critical step in making sustainable practices standard across the industry, rather than optional. Through this progressive framework, the EU is establishing a global example of how government policy can drive the transition to a circular economy. Each action plan, from 2015 to 2024, builds upon its predecessors, creating a holistic system of sustainable practices designed to reshape the textile sector from the ground up. By addressing both environmental impact and economic resilience, the EU's strategy provides a roadmap for a future in which textiles are produced, consumed, and disposed of in ways that respect planetary boundaries while supporting a sustainable economy.

Principles and Strategies of Circular Economy

The 2020 Circular Fashion System Commitment, spearheaded by the Global Fashion Agenda, represents a significant initiative designed to accelerate the transition towards circularity in the fashion industry. Launched to inspire tangible action, the commitment called on fashion brands and retailers of all sizes - regardless of market segment or starting point - to adopt circular principles and implement meaningful changes in their production and consumption practices.

In response to the urgent need for sustainable practices in fashion, the commitment was signed by 86 companies, representing a substantial 12.5% of the global fashion market. This level of engagement highlights the growing awareness among major industry players of their responsibility in addressing environmental challenges and the need to rethink traditional linear business models. Collectively, these signatory companies established 207 ambitious targets aimed at advancing circular practices. The targets were strategically organised across four key action areas (Figure 3), each designed to promote different aspects of circularity within the fashion system:

- Design for Circularity: This action focuses on integrating circular principles at the product design stage. Brands are encouraged to create garments that are durable, easily repairable, and made from materials that can be recycled or biodegraded. By emphasising thoughtful design, companies can help ensure that their products have longer lifespans and can be effectively reintegrated into the production cycle.
- Increase the Volume of Used Garments Collected: Signatories commit to establishing and expanding take-back schemes that encourage consumers to return used clothing for reuse or recycling. This action aims to strengthen the infrastructure for collecting pre- and post-consumer textiles, thereby reducing waste sent to landfill and keeping valuable materials in circulation.

- Increase the Volume of Used Garments Resold: To extend the lifecycle of fashion products, companies set targets to expand the resale market for second-hand clothing. By improving the visibility and accessibility of resale platforms, brands can promote a culture of reuse and prolong the life of garments, reducing the environmental footprint associated with producing new items.
- Increase the Use of Recycled Textile Fibres: This action calls for greater use of recycled materials in production. By prioritising recycled fibres over virgin resources, companies can reduce their reliance on raw material extraction and lower greenhouse gas emissions. It also encourages investment in new technologies and collaborations to advance textile recycling capabilities and close the loop in material use.



1	DESIGN FOR CIRCULARITY	Implementing design strategies for circularity.
2	USED GARMENTS AND/OR FOOTWEAR COLLECTED	Increasing the volume of used garments and/or footwear collected.
3	USED GARMENTS AND/OR FOOTWEAR RESOLD	Increasing the volume of used garments and/or footwear resold.
4	RECYCLED POST-CONSUMER TEXTILE FIBRES	Increasing the share of garments and/or footwear made from recycled post-consumer textile fibres.

Figure 3 - Circular Fashion System Commitment (Global Fashion Agenda)

The Ellen MacArthur Foundation has played a pivotal role in shaping the global understanding and adoption of circular economy practices. It has distilled the circular model into three core principles, each centred on the concept of design-led sustainability and efficiency:

- Eliminate Waste and Pollution: Focus on designing waste out of the economic system from the outset. Products and processes should ensure that all materials can be safely reused or decomposed, thereby reducing pollution and eliminating waste through thoughtful design.
- Keep Products and Materials in Use: Prioritise strategies that extend the lifespan of products, such as maintenance, reuse, and remanufacturing. By creating durable items that can be repaired or repurposed, the ongoing need for new resources is minimised, keeping materials productive and valuable.
- Regenerate Natural Systems: Strive to create a positive environmental impact by supporting and replenishing natural ecosystems. This includes enhancing soil health, promoting biodiversity, and using renewable resources to align economic activities with ecological restoration and balance.

These foundational principles underpin a comprehensive redesign of how products are manufactured and consumed, driving innovation that prioritises both economic and ecological well-being.

R-Strategies for Circular Economy

To implement circular practices effectively, a set of detailed strategies, often referred to as the "R-principles," guide organizations in their pursuit of resource efficiency. These principles form a hierarchy of actions, starting from the most preferable options, like preventing waste, to the least preferable, such as energy recovery from waste (Figure 4). Each principle offers a unique way to minimize environmental impact:

REFUSE	Avoid the use of unnecessary or unsustainable resources to reduce demand and prevent waste from the outset.
RETHINK	Challenge traditional ownership models and encourage mindful consumption through sharing and renting, improving resource efficiency.
REDUCE	Design products and processes that use fewer resources, applying innovation to minimise environmental impact.
REUSE	Extend the lifespan of products by sharing, repurposing, or donating them, keeping items in circulation for longer.
REPAIR	Prioritise maintenance and repair to maximise product lifespan, ensuring products are easy to fix.
REFURBISH	Restore products to a like-new condition to extend usability, often through cleaning, upgrading, or replacing components.
REMANUFACTURE	Disassemble and rebuild products using a combination of new and reused parts to retain material value.

REPURPOSE

Creatively adapt products for new functions, preventing them from becoming waste.

RECYCLE

Process materials into new products; although less energy-efficient than reuse or repair, recycling remains essential for waste management.

RECOVERY

Recover energy from non-recyclable waste as a last resort, ensuring that minimal value is lost.

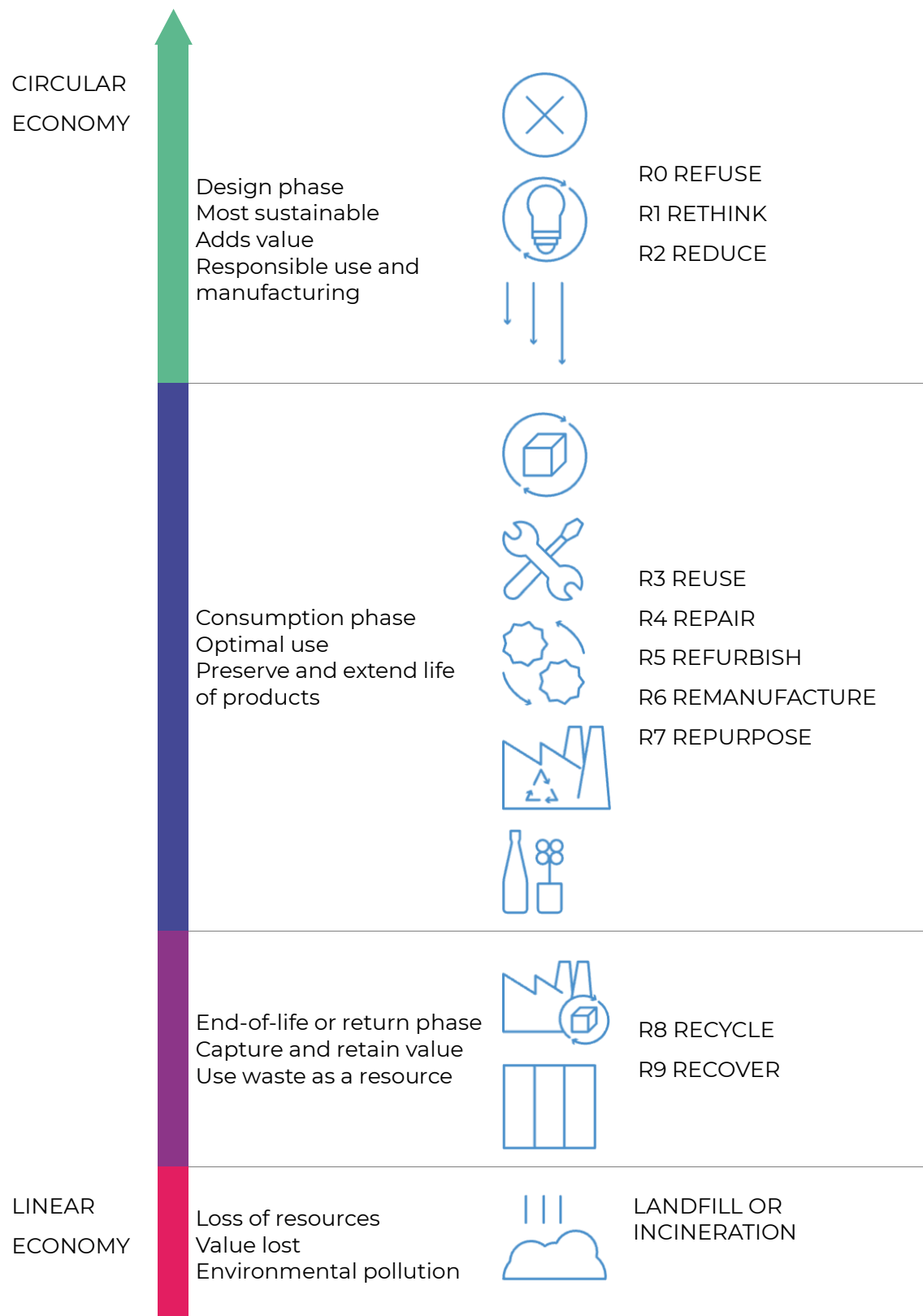


Figure 4 - The different stages that R-Strategies can be implemented

Business Model Strategies for Circularity

In the transition towards a circular economy, businesses must adopt innovative models that decouple growth from resource consumption. Bocken et al. outline two fundamental strategies for achieving circularity in business models: slowing resource loops and closing resource loops. Both approaches require rethinking traditional business practices in order to maximise resource efficiency, reduce waste, and extend product life cycles. These strategies provide pathways for businesses not only to reduce their environmental impact but also to create new opportunities for growth by capturing the value of resources that were previously discarded.

Slowing Resource Loops focuses on extending the life cycle of products through strategies such as product durability, maintenance, repair, reuse, and refurbishment. By keeping products in use for longer, businesses can reduce the need for new resource extraction and manufacturing, thereby lowering environmental impacts while strengthening customer relationships and generating long-term value.

SLOWING RESOURCE LOOPS focuses on extending the life cycle of products through the following business model strategies:

- Access and performance models: Providing access to a service or capability that satisfies user needs without requiring ownership of physical products (e.g. rental or leasing models).
- Extending product value: Capturing the residual value of products throughout their life cycle—from manufacturing to consumer use and back into production—often through collection systems across different business entities (e.g. remanufacturing).

- Classic long-life models: Business models centred on delivering long-lasting products, supported by design strategies such as durability, modularity, and ease of repair (e.g. tailoring services combined with lifetime repair).
- Encouraging sufficiency: Solutions that actively aim to reduce end-user consumption by emphasising durability, upgradability, service provision, warranties, and reparability, alongside non-consumerist marketing and sales approaches (e.g. no sales commissions).

CLOSING RESOURCE LOOPS EMPHASISES reintegrating waste and by-products back into the production system through strategies such as:

- Extending resource value: Exploiting the residual value of resources by collecting and sourcing materials that would otherwise be wasted and transforming them into new forms of value (e.g. recycling).
- Industrial symbiosis: A process-oriented approach in which the residual outputs of one process are used as inputs for another, often benefiting from the geographical proximity of businesses (e.g. using agricultural waste to produce new fibres).

Circular Business Models for Fashion

Fashion businesses can further integrate circular practices through three core business model categories (Figure 5):

MORE USE PER USER



Enabling a user to wear a product more and for longer. This could include designing products to be physically and emotionally durable, providing services to support long-term use, and empowering users to use their products more and for longer (e.g. tips for DIY customisations).

MORE USERS PER PRODUCT



Designing and providing platforms and/or services that facilitate the movement of products from user-to-user so the products can be used more. Products can pass from one user to another after any period of time and on a 'one-off' or periodical basis.

BEYOND PHYSICAL PRODUCTS



Designing and developing non-physical, digital products and/or services that replace, enhance, and complement users' fashion needs and aspirations.

Figure 5 - Circular business model categories

These categories align with four main circular business models in the global fashion market: Resale, Rental, Repair, and Remaking (Figure 6).

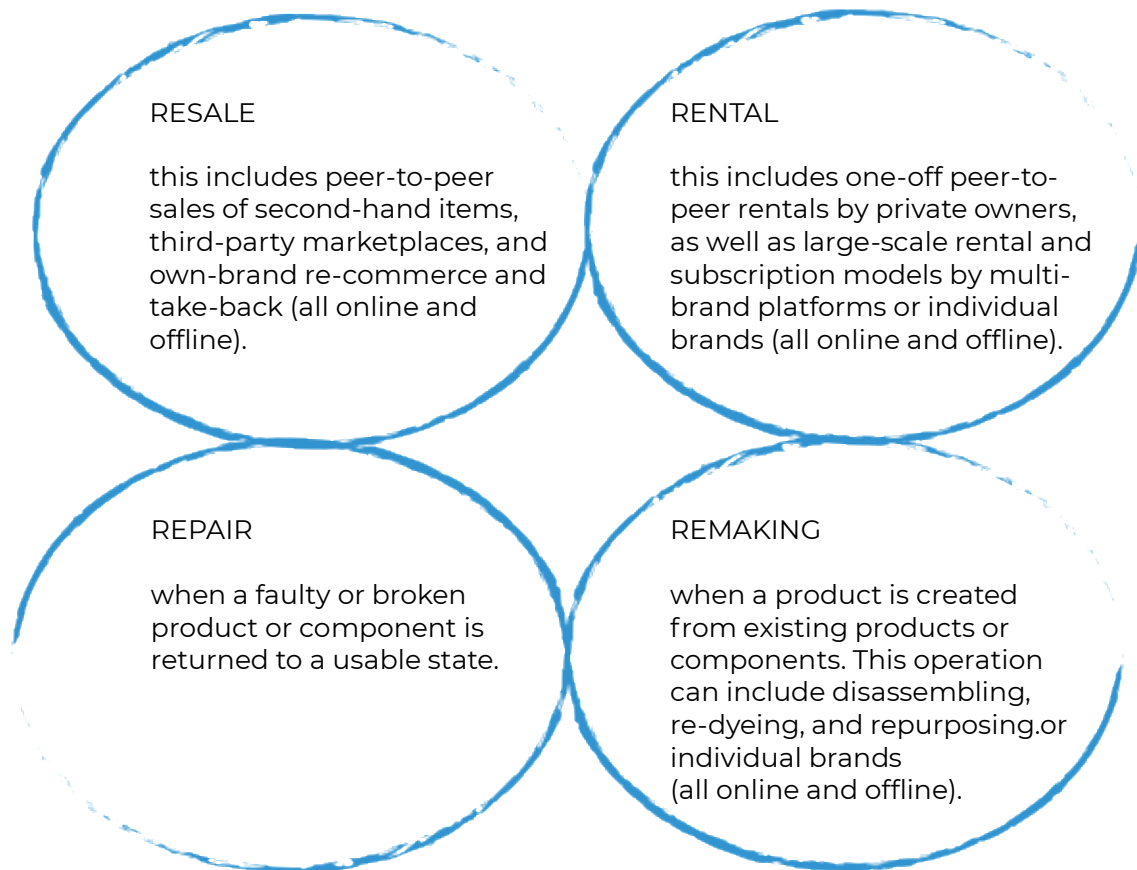


Figure 6 - Main circular business models in the global fashion market

In 2019, the circular fashion market was valued at USD 63 billion, accounting for approximately 3.5% of the global fashion industry. Resale dominated the market, holding a 63% share, while rental followed with 20%, appealing to consumers who prioritise access over ownership. Repair represented 13% of the market, highlighting the importance of garment longevity, whereas remaking accounted for the smallest share at 4%, focusing on upcycling and creative reuse.

By 2030, the circular fashion market is projected to grow significantly, reaching an estimated value of USD 691 billion. Resale is expected to expand to 69% of the market (USD 476 billion), while rental is forecast to increase to 24% (USD 167 billion), reflecting a growing shift towards more sustainable consumption practices. Although repair and remaking are anticipated to capture smaller shares—5% and 2% respectively—they will continue to play a crucial role in reducing waste and extending product life cycles.

Overall, these trends indicate a substantial transformation within the fashion industry, marked by an increasing emphasis on circular business models and sustainability.

Case Studies and Best Practices

The objective of this section is to provide each region with the opportunity to present case studies and examples of good practice that align with their specific objectives and requirements. By showcasing these examples, the trainer can demonstrate the practical application of the concepts and information presented. This chapter therefore highlights examples of companies implementing circular business models within the textiles and fashion sectors.

M.I.N.T CARE – MONKI

In April 2021, Monki, a brand belonging to the H&M Group, launched a new application aimed at fostering stronger engagement with its community. The Monkisphere platform and the provision of aftercare services have been identified as factors that contribute to extending the lifespan of garments. Through M.I.N.T. Care, customers can place orders for a range of services, including washing, repair, and redesign.

KEY ACHIEVEMENTS	BEST PRACTICES
Launch of the M.I.N.T Care service platform and Monkisphere app.	Strengthening consumer engagement through digital tools that promote garment longevity.
Integration of repair, wash, and redesign services into a single customer interface.	Embedding service-based circularity directly into the user journey.
Enabling customers to order maintenance and transformation services on demand.	Facilitating easy access to care and repair to extend product use phases.

Website: <https://hmgroupp.com/news/monki-launches-new-app/>

TOMMY FOR LIFE - TOMMY HILFIGER

Launched in 2020, Tommy for Life is Tommy Hilfiger's circular business model designed to extend the lifespan of unused and returned garments. The initiative integrates multiple circular pathways, including resale—where items are cleaned, repaired, and resold; rework—where partially damaged garments are redesigned by skilled tailors into unique products; rental—tested through pilot programmes with MyWardrobeHQ and Rotaro in the UK; and trade-in schemes that allow customers to return Tommy Hilfiger items in exchange for vouchers. Collectively, these strategies enable value recovery, reduce waste, and expand circular consumption options for consumers.

KEY ACHIEVEMENTS	BEST PRACTICES
Introduction of a circular model combining resale, rework, rental, and trade-in pathways.	Applying multi-route product recovery tailored to item condition.
Rework of partially damaged garments into unique pieces by skilled tailors.	Enhancing value through creative redesign and craftsmanship.
Establishment of take-back and rental partnerships (e.g., MyWardrobeHQ, Rotaro).	Expanding circular access through incentivized returns and cross-sector collaborations.
Website: https://responsibility.pvh.com/tommy/circular-business-models/	

REPAIR SPOTS - NUDIE JEANS

Nudie Jeans operates a comprehensive repair ecosystem designed to extend the lifespan of its denim products. The brand provides repair services through dedicated repair shops, certified repair partners, mobile repair stations that visit selected locations, and DIY repair kits for customers who wish to mend garments at home. This multi-channel approach ensures convenient access to repair services, promotes product stewardship, and reinforces a culture of longevity. Garments collected through repair initiatives may be resold or donated, ensuring that products remain in circulation for as long as possible.

KEY ACHIEVEMENTS	BEST PRACTICES
Established multi-channel repair ecosystem (shops, partners, mobile units).	Promoting lifelong product stewardship through repair
Provided accessible DIY repair kits for customers.	Expanding access via mobile and partner repair networks
Created pathways for repaired items to be resold or donated.	Supporting circularity by reintegrating repaired items into the market.
Website: https://www.nudiejeans.com/repair-spots	

REPAIRING CLOTHES AND TEXTILES - REPAIR CAFÉS

Repair Cafés are community-based spaces where individuals can repair textiles and a wide range of household goods with guidance from volunteer experts. Equipped with tools, materials, and skilled support, these cafés promote hands-on learning and extend product lifespans by preventing premature disposal. Participants collaborate on repairs while accessing educational resources related to do-it-yourself practices. With more than 2,500 locations worldwide, Repair Cafés foster social engagement, strengthen a culture of repair, and contribute to waste reduction through accessible, community-led action.

KEY ACHIEVEMENTS	BEST PRACTICES
Built a global network of 2,500+ community repair spaces.	Fostering community engagement through volunteer-led repair.
Enabled hands-on learning and collaborative repair.	Empowering citizens with accessible tools and skills.
Prevented waste by extending lifespans of diverse household items.	Encouraging waste prevention through local, low-cost circular solutions.
Website: https://www.repaircafe.org/en/repairing-clothes-and-textiles/	

CLOTHING CARE - CLOTHES DOCTOR

Clothes Doctor provides services and products aimed at extending the lifespan of garments through cleaning, protection, repair, alteration, and restoration. The company offers specialised care tools and accessories, complemented by educational resources such as the Clothing Care Journal, which guides users in maintaining and repairing their own clothing. This model integrates product and service solutions to promote responsible garment use and reduce waste by helping consumers preserve items for longer.

KEY ACHIEVEMENTS	BEST PRACTICES
Delivered comprehensive garment care, repair, and alteration services.	Integrating care, repair, and maintenance for longevity.
Introduced specialised care products and tools.	Combining product-service models to reduce textile waste.
Provided educational content through the Clothing Care Journal.	Guiding consumers toward responsible garment use.
Website: https://clothes-doctor.com/	

RENEWAL WORKSHOP – BLECKMANN

Bleckmann's Renewal Workshop provides industrial-scale renewal and resale solutions for returned apparel and textile products. The process involves collection, sorting, classification, cleaning, and repair, followed by resale through online or physical channels. Items deemed unsuitable for resale are redirected to appropriate recycling streams. The system is supported by multiple quality checkpoints, detailed product documentation, and standardised packaging workflows. This integrated approach enables brands and retailers to recover value from unsold or returned goods while reducing waste and supporting circular business models.

KEY ACHIEVEMENTS	BEST PRACTICES
Implemented industrial-scale renewal and resell system for returned textiles.	Applying rigorous quality control throughout renewal processes.
Created structured workflows for sorting, cleaning, and repair.	Ensuring traceability and documentation across product handling.
Established recycling pathways for items unsuitable for resale.	Maximising value recovery through systematic classification.
Website: https://www.bleckmann.com/solutions/circular-solutions/the-renewal-workshop	

UNIQUENESS – ISATIÓ

Isatió is a Belgian upcycling brand that transforms textile industry leftovers into unique, handcrafted garments. The process begins with the selection and sorting of surplus materials, which are then creatively combined into new, harmonious patterns. Each piece is designed and produced by hand, highlighting craftsmanship, waste valorisation, and aesthetic uniqueness. The brand exemplifies how small-scale, design-driven transformation can generate high-value products while reducing textile waste.

KEY ACHIEVEMENTS	BEST PRACTICES
Transformed textile leftovers into unique handmade garments.	Prioritising waste valorisation through creative upcycling.
Designed new patterns using surplus materials.	Creating high-value outputs through design-led material reinvention.
Used fully artisanal, hand-made production methods.	Elevating craftsmanship to ensure durability and uniqueness.
Website: https://en.isatio.com/a-propos	

NEW PRODUCTS FROM HOT AIR BALLOONS – LA TÊTE DANS LES NUAGES

La Tête dans les Nuages repurposes end-of-life hot air balloon fabric into durable beanbags and other indoor–outdoor products. These technical textiles, valued for their strength and weather resistance, are diverted from disposal and given new applications. The company also provides repair kits containing fabric patches, needles, and yarn, enabling users to extend the lifespan of their products. This approach demonstrates the innovative reuse of niche industrial materials through creative design.

KEY ACHIEVEMENTS	BEST PRACTICES
Repurposed end-of-life balloon fabric into durable products.	Leveraging technical textiles for long-life upcycled applications.
Offered repair kits for continued product maintenance.	Supporting user-led repair to extend product lifespan.
Demonstrated innovative reuse of niche industrial materials.	Showcasing creative solutions for hard-to-recycle waste streams.
Website: https://ltdln.com/	

REFACTORY – MYGROUP

ReFactory by MyGroup provides a circular processing pathway for used textiles, allowing products to undergo multiple lifecycles before reaching true end-of-life. Through a B2B collection system using recycling boxes or MYsafe pallets, textiles are gathered, sorted, washed, and deconstructed. The recovered materials are then provided to design teams who remanufacture them into new products. This integrated model combines logistics, material recovery, and creative redesign to maximise textile value retention and minimise waste.

KEY ACHIEVEMENTS	BEST PRACTICES
Launched a B2B textile collection system using recycling boxes and pallets.	Improving material flow through structured collection logistics.
Implemented sorting, washing, and deconstruction processes.	Creating efficient pathways for material preparation and recovery.
Remanufactured textiles into new products through design teams.	Strengthening circularity via design-driven remanufacturing.
Website: https://myrefactory.com/	

Conclusion

The handbook's central conclusions and key points can be summarised as follows:

- Circular Economy Principles: A shift from a linear to a circular economy is essential, emphasising sustainability, efficient resource use, and waste reduction. Integrating durability, repair, and reuse as core practices in product design can have a significant positive impact on environmental outcomes.
- Relevance to the Textile and Clothing Sector: The evolution of the circular economy, shaped by pioneers such as Walter Stahel, the Cradle-to-Cradle philosophy, and the Ellen MacArthur Foundation, has influenced current practices within the textile and clothing industry. Understanding this historical context highlights both the depth and urgency of transitioning to circular models.

Circular Business Models in the Fashion Industry: To achieve sustainability, the fashion sector is increasingly adopting circular business models that extend the lifecycle of products and materials. These models deliver both environmental and economic benefits by reducing waste, conserving resources, and fostering innovation. Four key approaches—resale, rental, repair, and remaking—are driving the future of circular fashion



PreVEnting and ReDucing the tExtiles waste mountain in the MED area

Project overview

The VERDEinMED project is an initiative funded by the Interreg Euro-MED programme to promote the circular economy in the textile sector. VERDEinMED is a thematic project that will provide a support service to boost circularity in the textile value chain for businesses, consumers, policy makers and academia.

The project is part of the Innovative Sustainable Economy mission of the Euro-MED programme, which seeks cooperation between Mediterranean countries to promote smarter and greener business models. VERDEinMED project brings together 10 partners and 15 associated entities from Greece, Spain, Portugal, Italy, Slovenia, North Macedonia, Bulgaria, Tunisia, Turkey, Belgium and Lebanon.



verdeinmed@verdeinmed.eu



[@verdeinmed](#)

Start-End date

01/01/2024-30/09/2026

Project type

Thematic project

Programme

Interreg Euro-MED

Funding

2.970.502.00 €

Coordinator

Chrysovalantis Ketikidis, Centre for Research and Technology-Hellas, Greece

Consortium

-CERTH – The Centre for Research & Technology, Hellas
-Bulgarian Fashion Association
-CITEVE
-Confindustria
-Consorci de la Ribera
-Corporación Tecnológica de Andalucía.

Bocken, N. M. P., de Pauw, I., Bakker, C., & van der Grinten, B. (2016). Product design and business model strategies for a circular economy. *Journal of Industrial and Production Engineering*, 33(5), 308–320. <https://doi.org/10.1080/21681015.2016.1172127>

Bocken, N. M. P., Short, S. W., Rana, P., & Evans, S. (2014). A literature and practice review to develop sustainable business model archetypes. *Journal of Cleaner Production*, 65, 42–56. <https://doi.org/10.1016/j.jclepro.2013.11.039>

Circularise. <https://www.circularise.com/blogs/r-strategies-for-a-circular-economy>

Clothes Doctor. <https://clothes-doctor.com/>

Colasante, A., & D'Adamo, I. (2021). The circular economy and bioeconomy in the fashion sector: Emergence of a “sustainability bias.” *Journal of Cleaner Production*, 329. <https://doi.org/10.1016/j.jclepro.2021.129774>

Ellen MacArthur Foundation. (2010). *Towards the Circular Economy: Economic and Business Rationale for an Accelerated Transition*.

Ellen MacArthur Foundation. (2013). *Towards the Circular Economy: Economic and Business Rationale for an Accelerated Transition*.

Ellen MacArthur Foundation. <https://www.ellenmacarthurfoundation.org/circular-economy-principles>

European Commission. (2015). *Closing the loop – An EU action plan for the Circular Economy*. COM(2015) 614 final.

European Commission. (2019). *The European Green Deal*. COM(2019) 640 final.

European Commission. (2020). *A New Circular Economy Action Plan for a cleaner and more competitive Europe*. COM(2020) 98 final.

European Commission. (2022). *EU Strategy for Sustainable Textiles*. COM(2022) 141 final.

European Parliament. (2020). *A New Circular Economy Action Plan for a Cleaner and More Competitive Europe*.

European Parliament. <https://www.europarl.europa.eu/topics/en/article/20151201STO05603/circular-economy-definition-importance-and-benefits>

Fletcher, K., & Tham, M. (2019). The Circular Economy and the Fashion Industry. In *Handbook of Sustainable Apparel Production* (pp. 395–418).

Geissdoerfer, M., Savaget, P., Bocken, N. M. P., & Hultink, E. J. (2017). The Circular Economy – A new sustainability paradigm? *Journal of Cleaner Production*, 143, 757–768. <https://doi.org/10.1016/j.jclepro.2016.12.048>

HM Group. <https://hmgroup.com/news/monki-launches-new-app/>

ISO 59004:2024. (2024). *Circular Economy – General Principles and Framework*.

Kirchherr, J., Reike, D., & Hekkert, M. (2017). Conceptualizing the Circular Economy: An Analysis of 114 Definitions. *Resources, Conservation & Recycling*, 127, 221–232. <https://doi.org/10.1016/j.resconrec.2017.09.005>

Lieder, M., & Rashid, A. (2016). Towards circular economy implementation: A comprehensive review in context of manufacturing industry. *Journal of Cleaner Production*, 115, 36–51. <https://doi.org/10.1016/j.jclepro.2015.12.042>

Ltdln. <https://ltdln.com/>

Muthu, S. S., & Li, Y. (2020). Circular Economy in the Textile and Apparel Industry: A Critical Review and Implementation Roadmap. *Sustainability*, 12(14), 5593. <https://doi.org/10.3390/su12145593>

Niinimäki, K., & Hassi, L. (2011). Emerging Business Models and Sustainability in the Textile Industry: A Conceptual Framework. *Sustainability*, 3(3), 496–510. <https://doi.org/10.3390/su3030496>

Niinimäki, K., et al. (2020). The environmental price of fast fashion. *Nature Reviews Earth & Environment*, 1(4), 189–200.

Nudie Jeans. <https://www.nudiejeans.com/repair-spots>

PVH. <https://responsibility.pvh.com/tommy/circular-business-models/>

Raungart, M., & McDonough, W. (2002). *Cradle to Cradle: Remaking the Way We Make Things*.

Repair Café. <https://www.repaircafe.org/en/repairing-clothes-and-textiles/>

Stahel, W. R., & Reday, G. (1976). The Potential for Substituting Manpower for Energy.

The Renewal Workshop (Bleckmann). <https://www.bleckmann.com/solutions/circular-solutions/the-renewal-workshop>

Isatio. <https://en.isatio.com/a-propos>



CIRCULAR BUSINESS MODELS

Trainer Handbook



VERDEinMED

Interreg
Euro-MED



Co-funded by
the European Union