Key learnings for advancing circularity

Project: United for a social circular economy: Phase I

Supported by **State Secretariat for Economic Affairs SECO**

Project facts

STS target	Circular economy
Focus topic	Fiber-to-fiber recycling, closing the loop
Project country & scope (phase I)	Egypt and Morocco
Supporting organizations (phase I)	International Trade Center (ITC) & GTEX/MENATEX, Swiss Fair Trade, Swiss Textiles, amfori
Duration	Phase 1: 07/2024 - 12/2025 Phase 2: 01/2026 - 12/2027

This document summarises the key learnings gained in the context outlined. It does not claim to be exhaustive and contains the results of the project without additions or evaluations.

Pilot projects

- A pilot project makes the circular economy tangible and allows key levers such as technology, design, traceability, and collaboration to be tested in a targeted manner.

> Start small: Choose simple products and gather experience that you can then build on and scale up — even for more complex products.

Partnerships with recyclers

- Building strong partnerships with recyclers requires an understanding of the local context, including technical capabilities, market dynamics, and regulatory environments.
- Long-term, trust-based collaboration on equal footing is essential for developing viable circular value chains. This includes openly sharing requirements, constraints, and ambitions, and jointly defining what is feasible.

Collaboration within and across companies

- Circular products cannot be developed in silos. Close collaboration between sustainability, sales, buying, marketing and design departments is essential, as circularity affects product development, sourcing, pricing, and communication.

> Internal design guidelines for products with recycled content and a physical or digital material library can help align teams and build internal buy-in for circular solutions.

- Collaborate across brands to increase purchase volumes, share fabrics and joint input streams.

Customers as part of the system

- Understanding customer needs and viewing customers as part of the value chain is essential for circularity. By analysing what users truly value, products can be reimagined to deliver greater functional, emotional, or aesthetic benefits that encourage longer use.

> Circularity requires systemic change, not just material substitution. It demands new forms of collaboration, shared responsibilities, and long-term partnerships across brands, logistics providers, suppliers, and recyclers.

Fiber-to-fiber recycling capabilities in the MENA region

- The recycling industry in Egypt and Morocco is evolving rapidly, with companies investing in advanced technologies. The informal sector plays a central role in the circular economy but remains underutilized.

> Efforts need to be made by all the stakeholders to support formalisation.

- Egypt and Morocco offer promising recycling capabilities for pre- and post-consumer materials. The greatest potential identified lies in mechanically recycled cotton and poly-cotton blends.
- Several recyclers show strong technical foundations, import and export know-how to Europe, vertical integration, and relevant environmental and social certifications.
- Challenges identified relate to raw materials supply, resale market demand, technological and financial constraints.

The STS Circularity Action Plan (DE) offers an implementation guide to promote circular business models.

Momentum to establish due diligence in textile recycling

Textile recycling supply chains are often complex, with risks at multiple levels. Recycling work is frequently carried out by marginalized groups, particularly in informal settings, where the risk of poor working conditions is higher.

Due diligence systems for recyclers are far less established than for garment factories. Social aspects are often overlooked, as circularity is primarily perceived as an environmental topic.

There is a strong need for guidelines and shared expectations regarding labour rights, working conditions, and environmental practices in recycling facilities.

> This represents a clear area for pioneering work in phase II.

Transparency as a key prerequisite

Transparency is an enabler for closing the loop systems, due diligence, and scaling. Early engagement with data collection, digital product passports, and common standards facilitates collaboration, reduces risks, and increases the feasibility of circular solutions.

End-of-life remains a key challenge

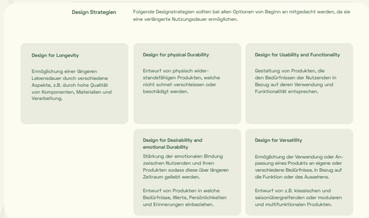
Brands see the need for practical end-of-life solutions but struggle with small volumes, reverse logistics, and unclear responsibilities.

> Collaboration can be a key to overcoming these challenges.

1 Build a common understanding

2 Analysis & Matching of brands and recyclers

3 Create circular design strategies and circular products



Refer to the STS Circularity Action Plan for various design strategies.

4 Develop a system to close the loop (start: phase II)

5 Implement due diligence (start: phase II)

6 Develop and disseminate learnings

Data-driven matchmaking

Selecting suitable recyclers depends on clear product and material requirements and transparent, comparable data. The quality of recycled fibers remains the decisive factor for market acceptance.

Mutual transparency is critical: Recyclers need clear information on product specifications and expected volumes, while brands need clarity on MOQ, prices, capacities, input sources, and environmental and social standards.

Quality testing and physical samples

Mechanical recycling poses inherent challenges, including variable quality and often higher prices compared to virgin materials.

> In-depth quality analysis (e.g. fibre length) and early durability testing (e.g. pilling, wash performance) are essential.

Physical samples have proven indispensable. Buyers and designers need to see, touch, and test materials. Obtaining samples can be more complex than with conventional fabric manufacturers; strong local partners such as ITC are therefore critical enablers.

Regulatory and logistical complexity

Regulatory hurdles for exports and imports (including customs duties) in the regions remain significant.

> Requires early analysis of regulatory barriers and dialogue with political and institutional actors.

Emerging regulations and EPR systems

New regulations and industry solutions such as ESPR, EPR, and Fabric Loop are shaping the industry.

> Early development of compliance strategies and use of synergies with Swiss and European programmes and initiatives is essential.

Circular design through systems thinking

- Circular design is not limited to the physical product. Brands should consider collection logistics, use-phase behaviour, circular business models and end-of-life early in the design phase.

> Recycling should be the last resort; internal cycles such as reuse and repair should be prioritised where feasible.

Circular design process and user-centric design

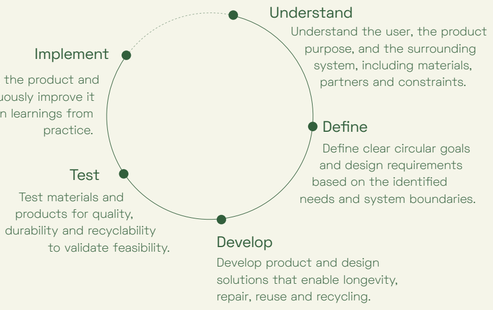
- The starting point when designing circular products should be the user's needs and the product's purpose.

> Ensure that products made of recycled content offer clear functional, aesthetic, or emotional added value to justify potential price differences.

> Practical guidance from existing examples on how companies implement circular design are valuable.

> Focus on scalability to maximize ecological impact.

Process:



Design for longevity

Products should be designed for long lifetimes by aligning all aspects of design with durability goals, including:

- Usability and functionality
- Physical durability
- Emotional durability and desirability

> Repairs provide valuable feedback for improving product design and extending product life.

Design for recycling

Enable material recovery for technical cycles and use materials suitable for primary recycling. Avoid elements that make material recycling difficult.

Key strategies:

- Eliminate
- Substitute
- Reduce
- Disassemble

> Ensure that the product still fulfills its core functions and priorities, and durability is not compromised.

Design for monomateriality: Reduce the complexity of products. Designing components from a single material simplifies sorting, disassembly, and recycling.

> Innovative approaches are required, for example using weaving techniques that provide elasticity instead of relying on blends.

Design for disassembly: Designs that allow easy separation of components and material types facilitate recycling or biological recovery.

> Common, shared design-for-recycling criteria help brands and recyclers align expectations.

January 2026

Sustainable Textiles Switzerland