circular.fashion

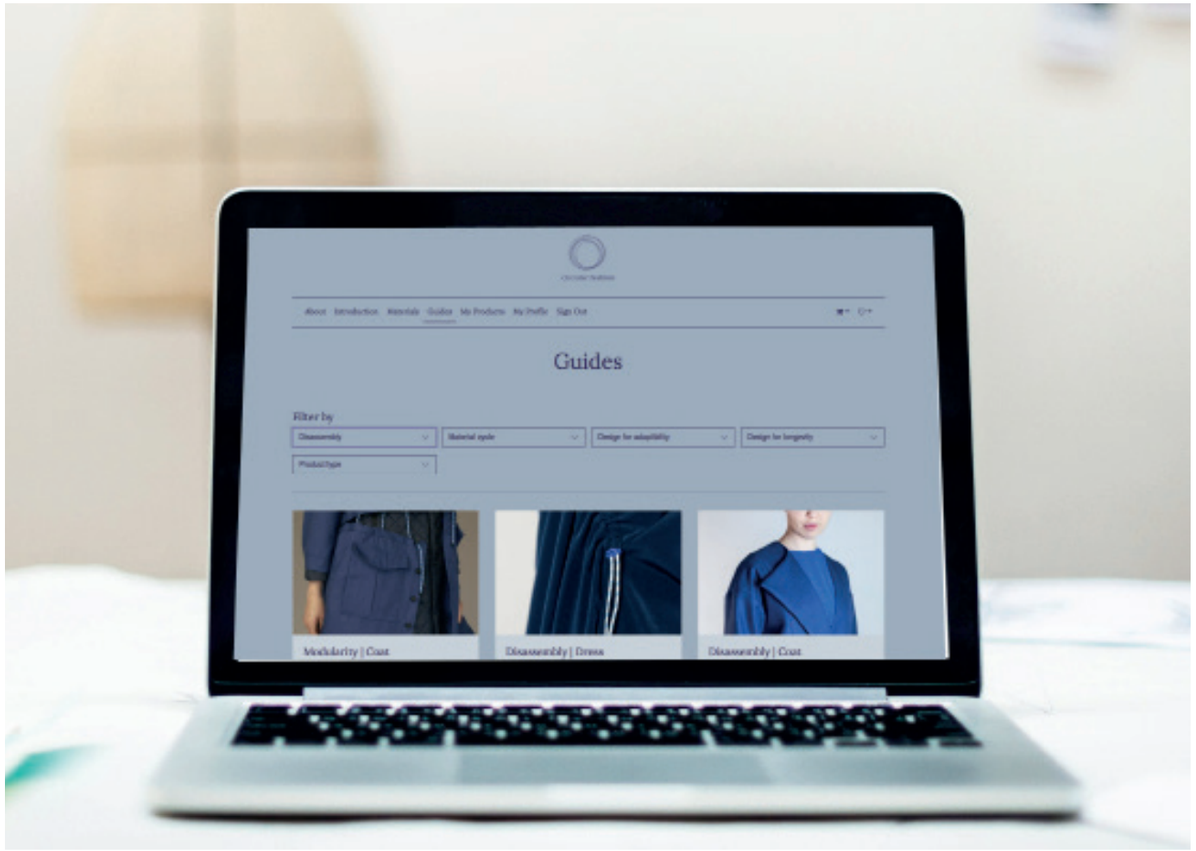
Recycling Heute
Herausforderungen und Lösungen für Circular Material & Design

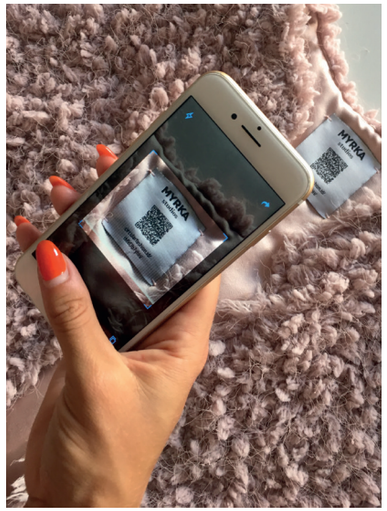
circular.fashion

Global Change Award

AN INNOVATION CHALLENGE
BY H&M FOUNDATION

A software platform for circular design and product transparency to orchestrate closed loop recycling





circular.fashion

12% OF THE FASHION MARKET COMMITTED TO BECOME CIRCULAR BY 2020

90 leading fashion brands

circular.fashion

HUGE POTENTIAL IN THE WORKWEAR SECTOR

Ownership of same products in large volumes

Status Quo Textile Industry

circular.fashion

OVER 100 BILLION GARMENTS YEARLY

produced in 2015

Ellen Macarthur Foundation, A new Textiles Economy (2017)

circular.fashion

87% INCINERATED OR LANDFILLED

worldwide

Ellen MacArthur Foundation, A New Textiles Economy: Redesigning fashion's future, 2017, p. 20

12% DOWNCYCLING

to insulation material or wiping cloth

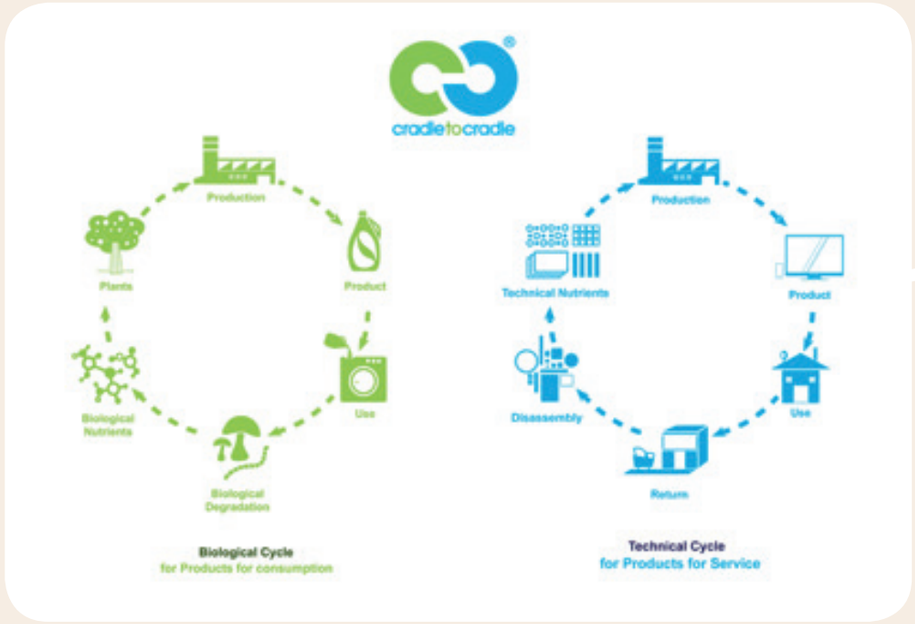
Ellen MacArthur Foundation, A New Textiles Economy: Redesigning fashion's future, 2017, p. 20

<1% FIBRE TO FIBRE RECYCLING

regenerates fibres to virgin quality

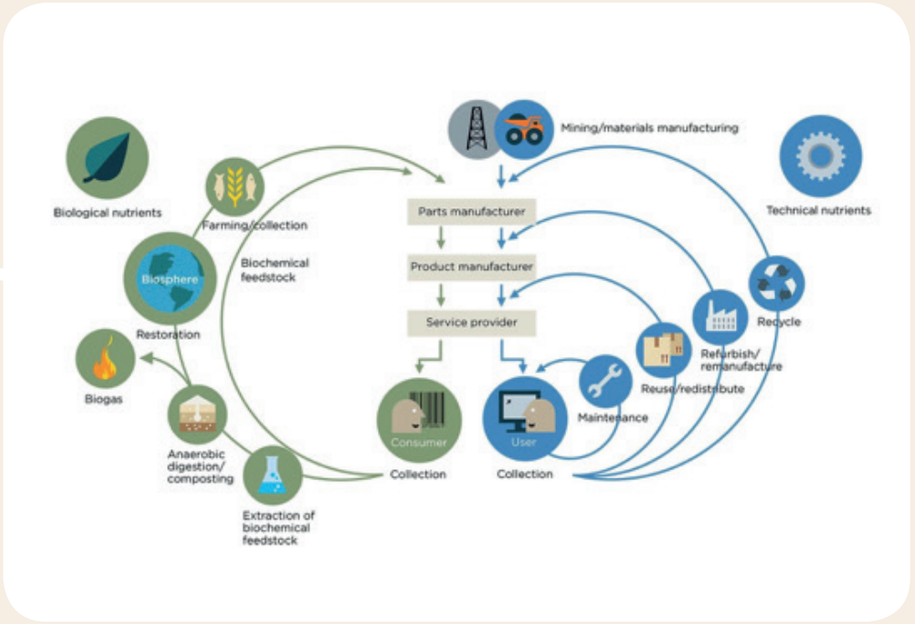
Ellen MacArthur Foundation, A New Textiles Economy: Redesigning fashion's future, 2017, p. 20

CRADLE TO CRADLE



A School of Thought
Design Philosophy

CIRCULAR ECONOMY



Economic Model
System Thinking

CIRCULARITY

WASTE IS A DESIGN FLAW

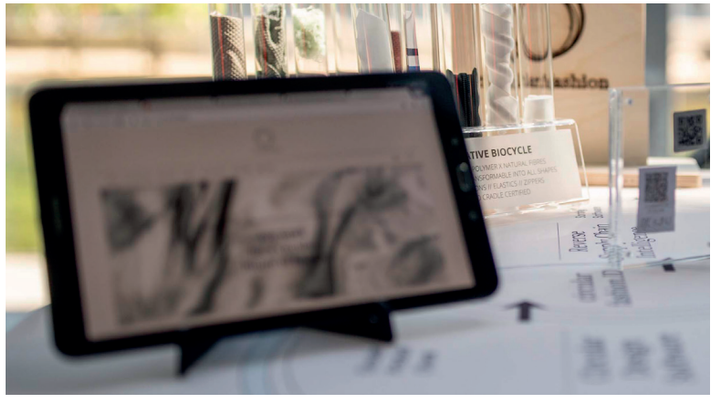
MATERIALS ARE REGULARLY WASTED DURING THE PRODUCTION PROCESS. WASTE CAN BE A RESOURCE BUT DESIGNERS MUST BE TAUGHT HOW TO MAKE USE OF DISCARDED MATERIALS. WHILE POST-CONSUMER WASTE IS ACCELERATED BY POOR DESIGN AND QUALITY, POST-CONSUMER WASTE CAN BE MINIMISED THROUGH CREATIVE DESIGN AND QUALITY CONSTRUCTION. WE NEED A 360° DESIGN VISION WHERE EVERY BIT OF EVERYTHING MADE IS REUSABLE, ADAPTABLE, OR BIODEGRADABLE — A CLOSED LOOP VISION FOR AN OPEN MINDED FUTURE.

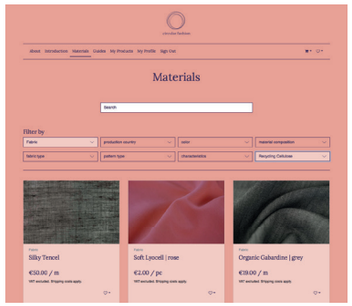
1. FASHION MUST BE DESIGNED FOR CIRCULARITY

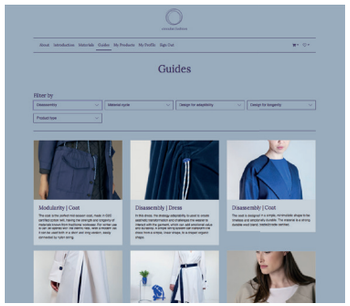
2. MAKE MATERIAL INFORMATION ACCESSIBLE TO SORT AND RECYCLE FIBRES TO NEW FIBRES

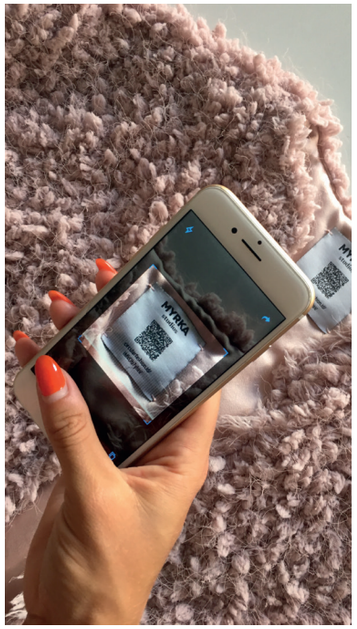
ONE COHERENT SYSTEM NEEDED

If one step fails, the whole mission fails.

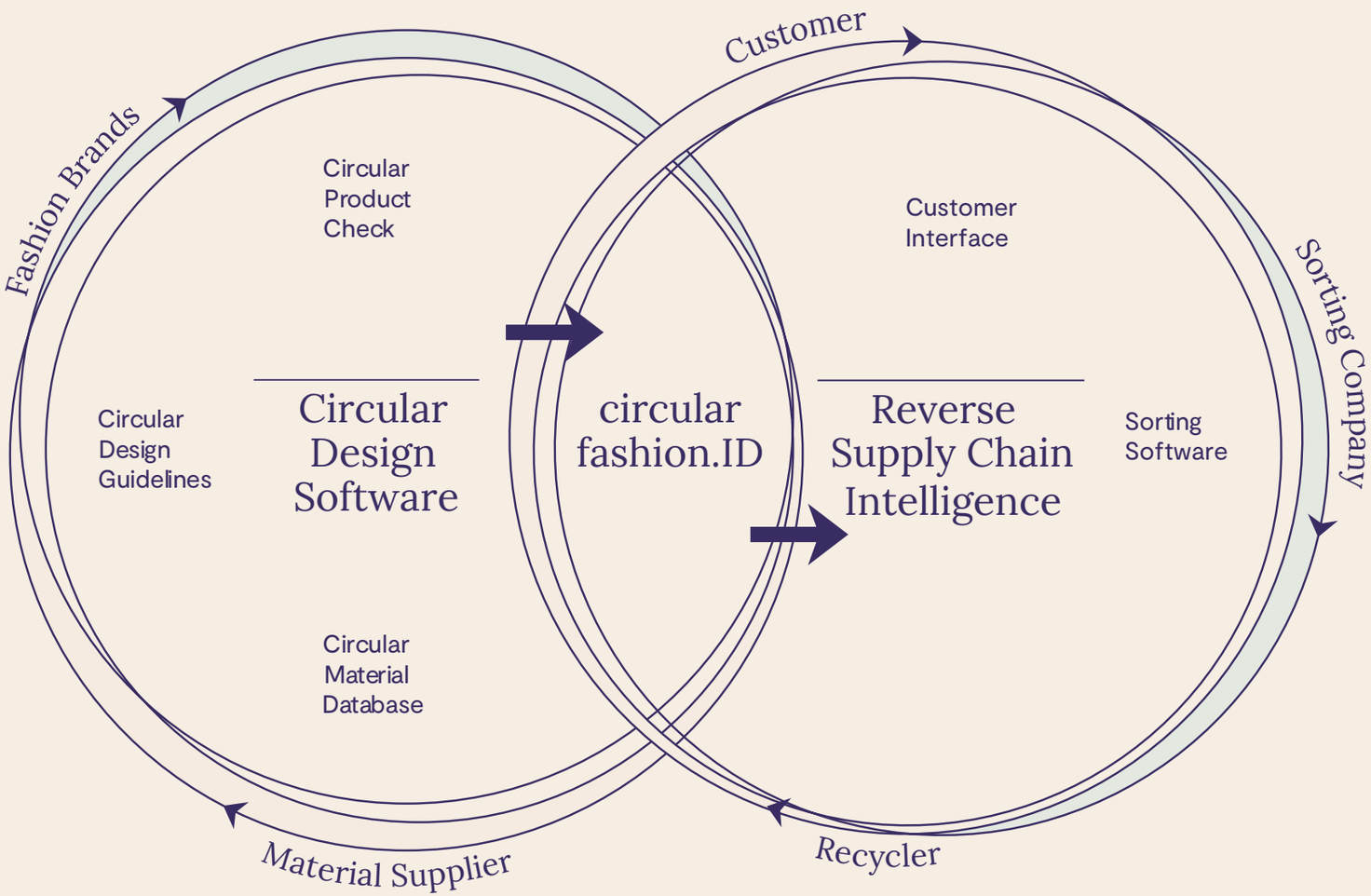








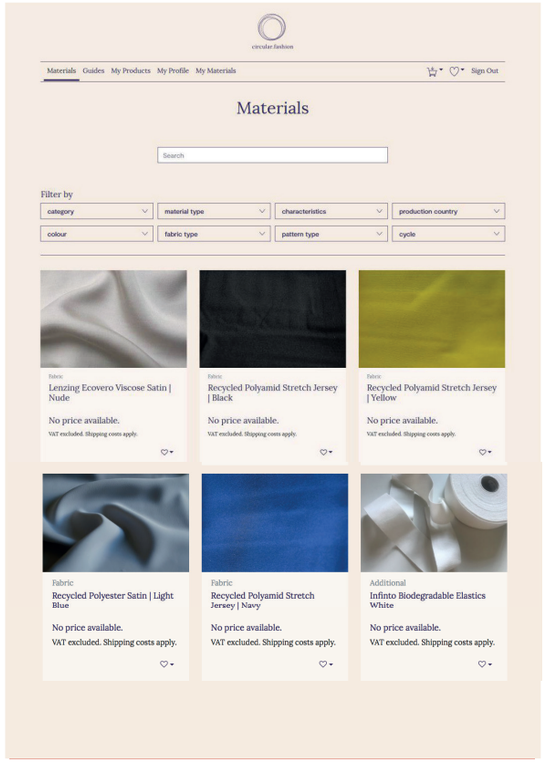
The circular.fashion system

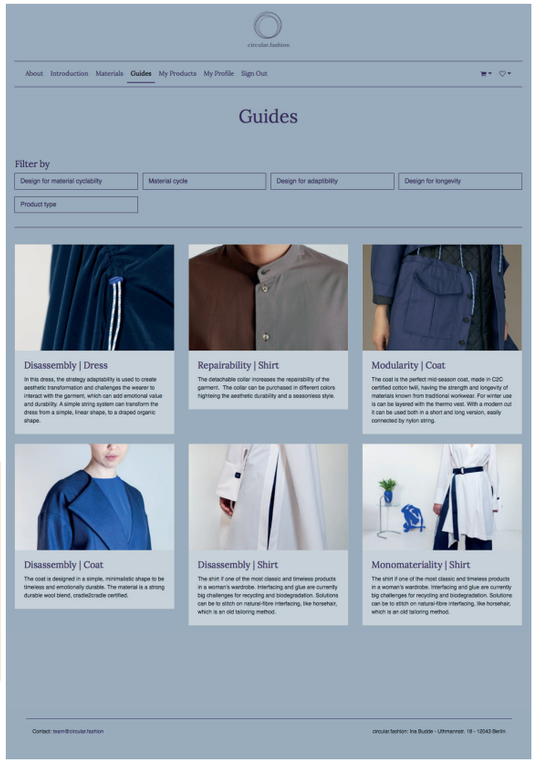


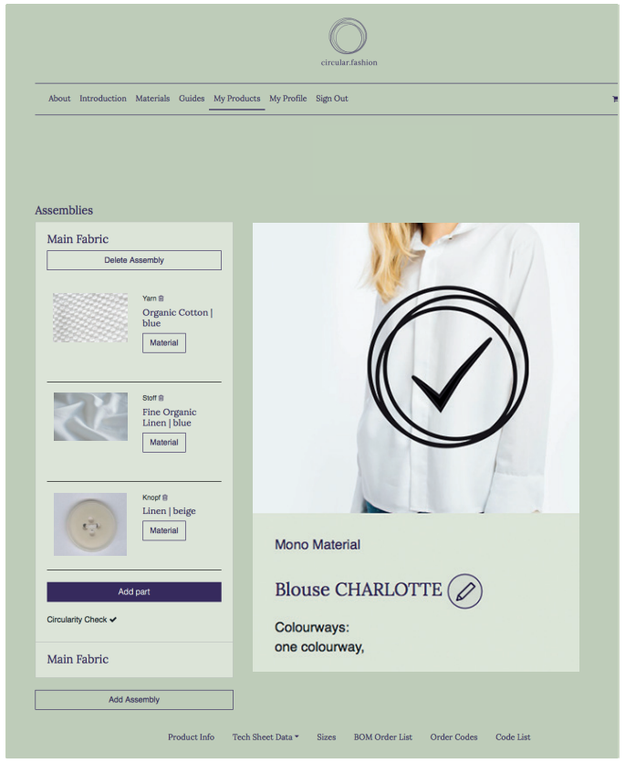
circular.fashion

1

Circular Design Software







Circular Material Database

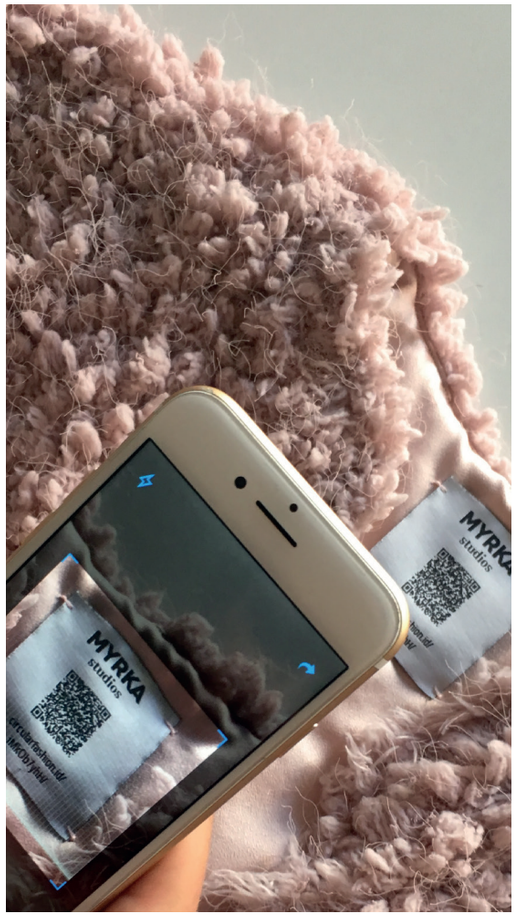
Circular Design Guidelines

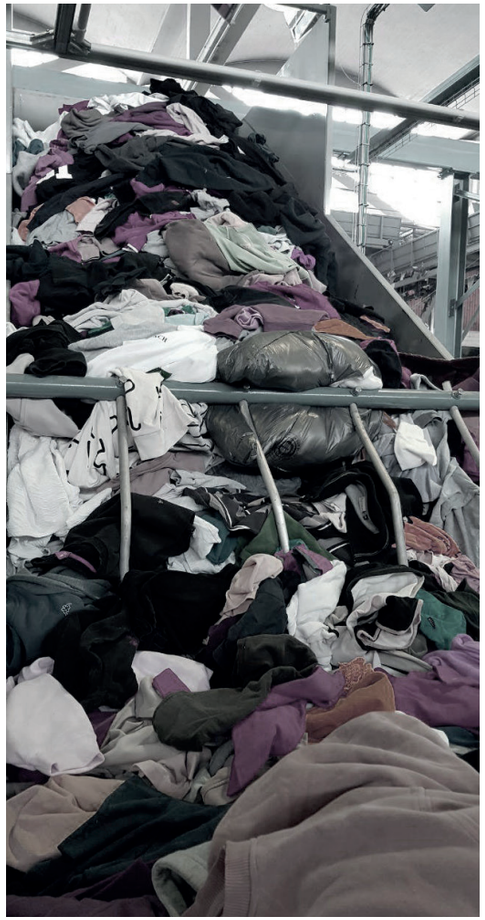
Circular Product Check

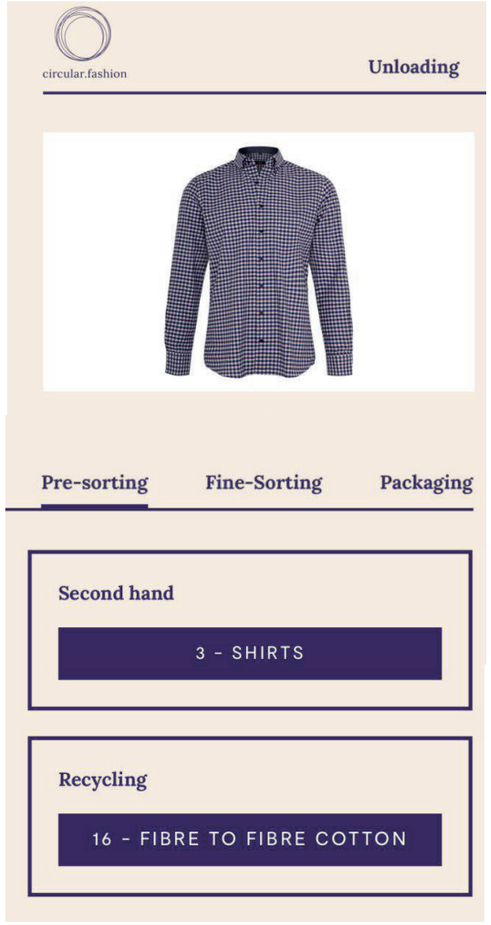
circular.fashion

3

circularity.ID Sorting Interface







circularity.ID

Smart Workspace

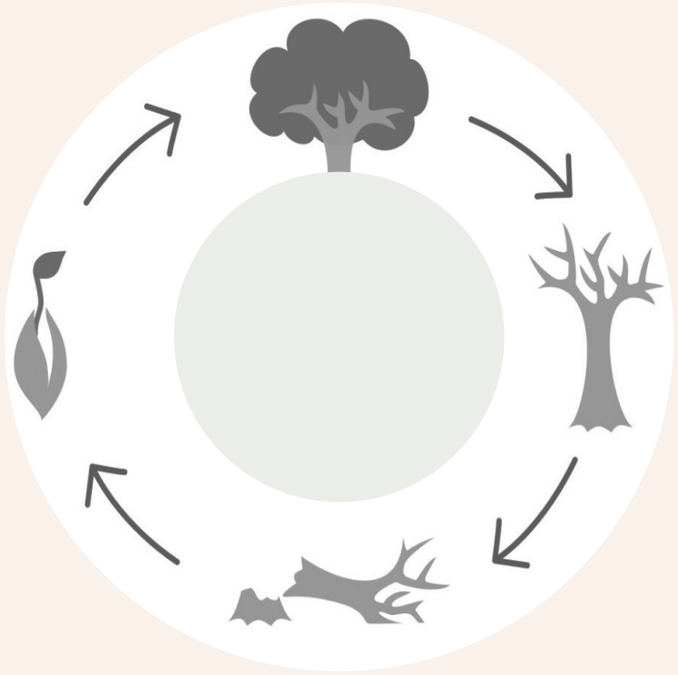
Sorting Software

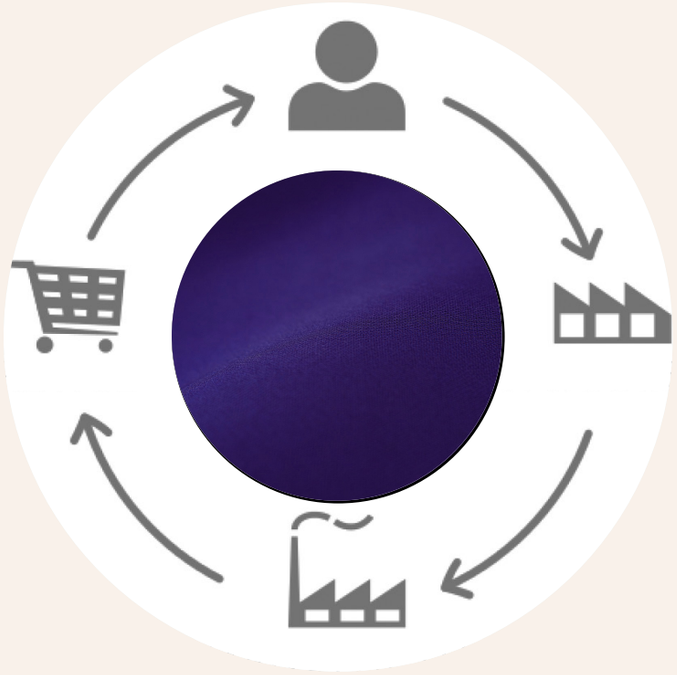
4 STEPS TO SUCCESS

1. Circular materials
2. Design for cyclability
3. Design for longevity
4. Closed loop recycling

1. CHOOSE HEALTHY MATERIALS THAT HAVE THE POSSIBLITY OF ENDLESS CYCLES

ENDLESS CYCLES IN BIOLOGICAL AND TECHNICAL CYCLE





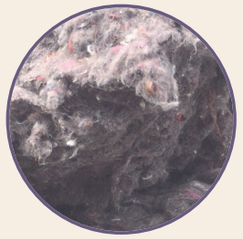
circular.fashion

LEVELS OF TEXTILE RECYCLING

CHEMICAL UPCYCLING
(Fibre-to-fibre)

MECHANICAL RECYCLING
(Plus virgin fibres)

MECHANICAL DOWNCYCLING
(Fibre-to-filling)



circular.fashion

CIRCULAR MATERIAL CHECK

BIODEGRADABLE TEXTILES

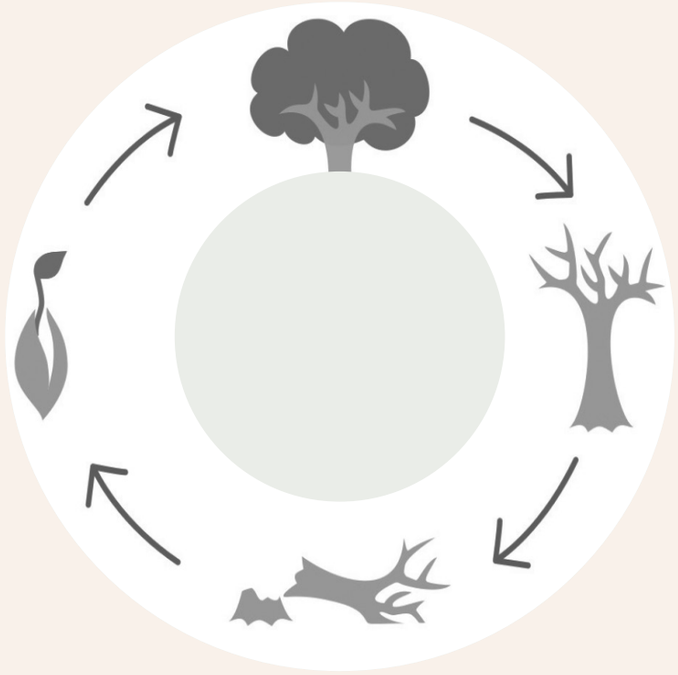
RECYCLABLE CELLULOSE

RECYCLABLE POLYESTER

MECHANICAL RECYCLING

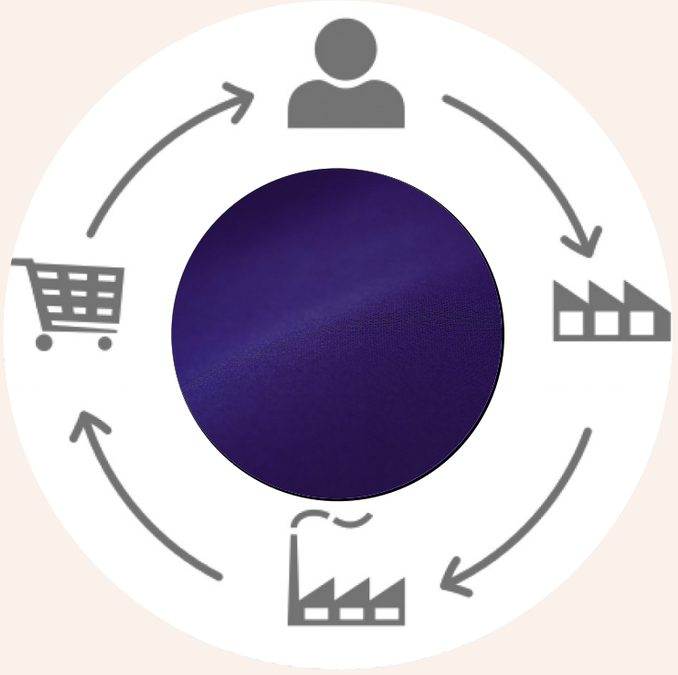
BIODEGRADABILITY

Micro fibres and products degrade safely and will not become waste



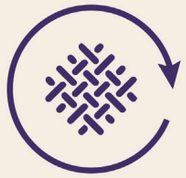
RECYCLABILITY

Products will not become waste and even replace virgin materials



2. DESIGN FOR CYCLABILITY

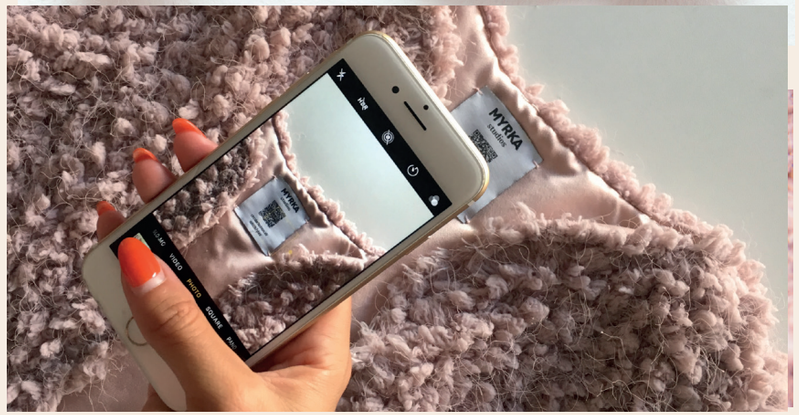
by mono-material or disassembly

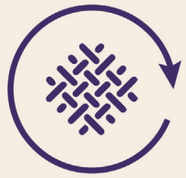


Design for Cyclability
Mono-Cycle

circular.fashion

Mono-material Lining and Details

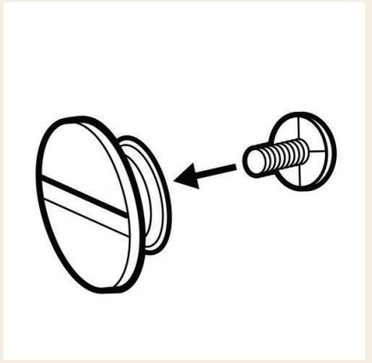


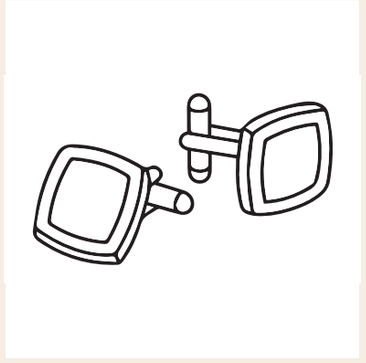


Design for Cyclability
Disassembly

circular.fashion

Disassembly Closure Mechanism





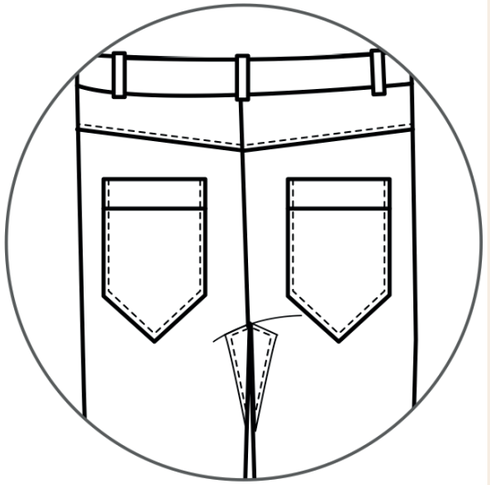
INDUSTRIAL BIODEGRADATION

3. DESIGN FOR LONGEVITY

made to last in function and aesthetic,
to update and modify for changing
needs and desires

circular.fashion

Strengthening Stress Points



EXTEND FIRST USE

CELLULOSIC RECYCLING

circular.fashion

Modular Transformation

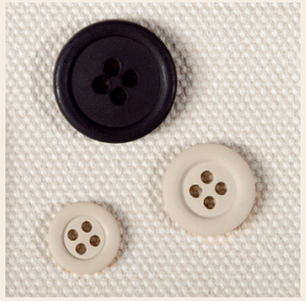
DESIGN FOR ADAPTABILITY

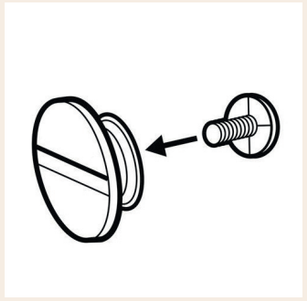
circular.fashion

UNFOLD THE FULL POTENTIAL THROUGH CIRCULAR SERVICES

DESIGN FOR REPAIRABILITY

Repairable Elements



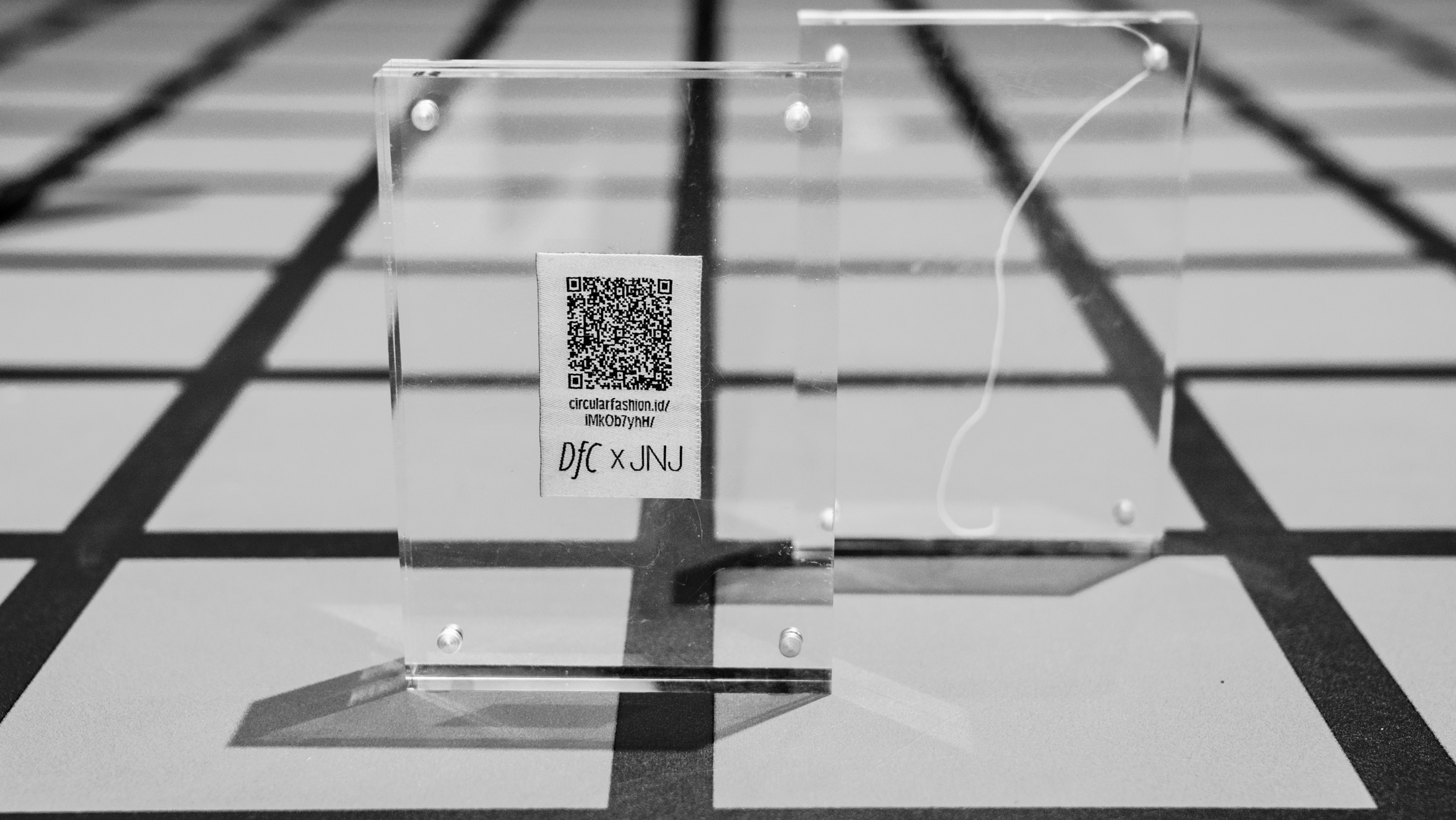


EXTEND FIRST USE

DESIGN FOR MATERIAL CYCLABILITY

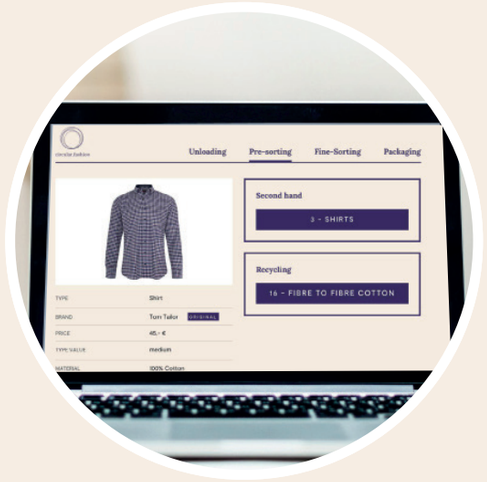
4. TRANSPARENCY INFRASTRUCTURES FOR FIBRE TO FIBRE RECYCLING

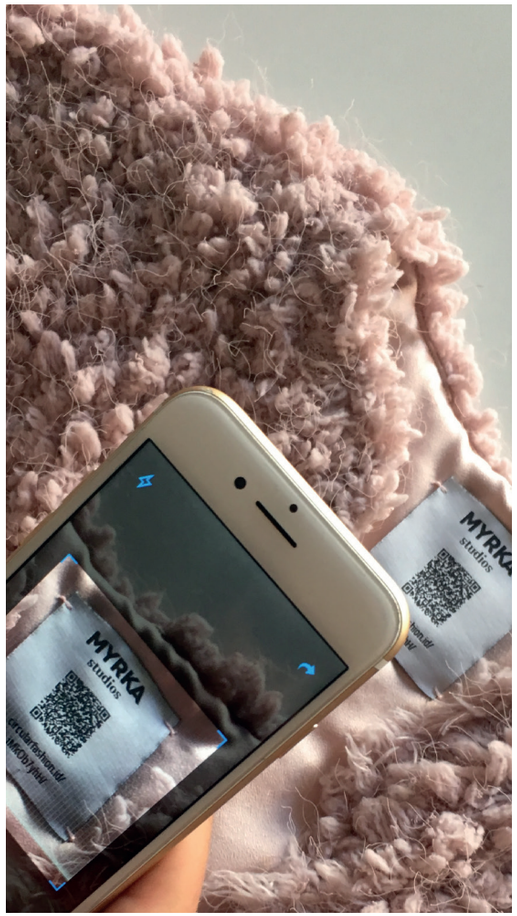
collecting, sorting and recycling

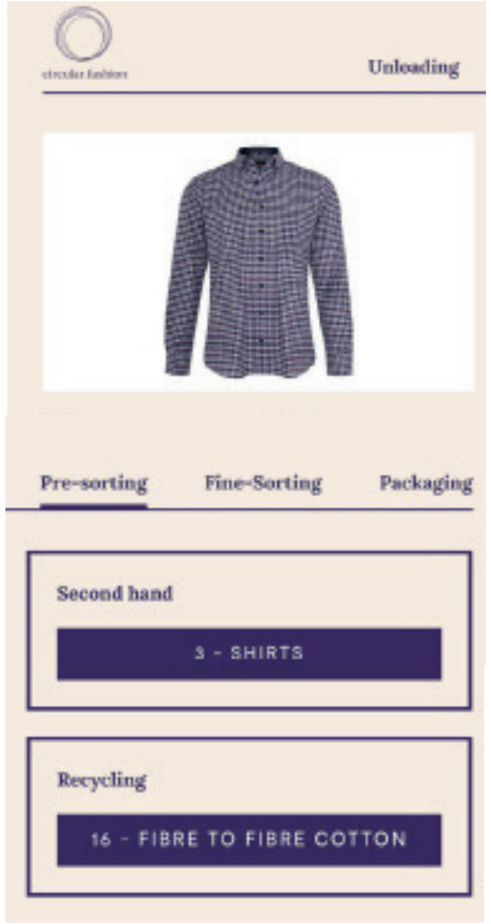

circularfashion.id/
iMkOb7ynH/
DfC x JNJ

circular.fashion

circularity.ID **Sorting** Interface





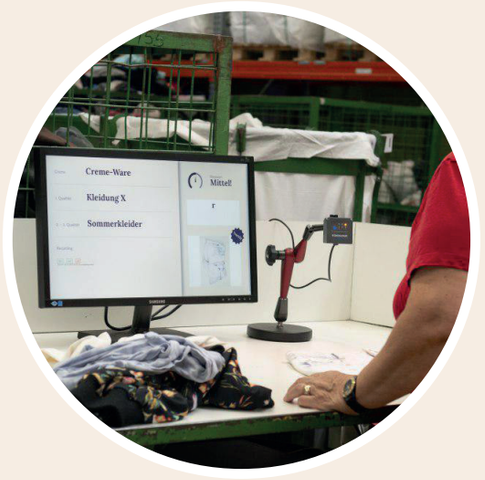


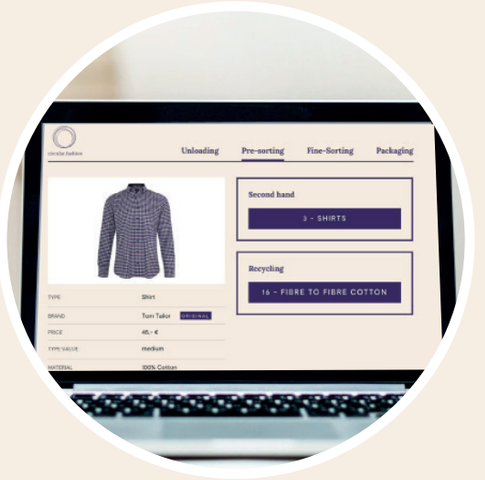
Collecting & Reuse

Sorting

Recycling

World‘s first closed loop recycling infrastructure





circular.fashion

TEXAID

CIRCULARITY

along the whole life cycle

Circular materials

Biobased & biodegradable

Recycled & recyclable

Design for cyclability

Recyclable material combinations

Monomaterial & Disassembly

Design for longevity

Long-lasting and adaptable design

Services for repair, reuse, redye

Closed loop Recycling

Provide detailed material information

Create Partnerships & Infrastructures

80%

OF A PRODUCT‘S **IMPACT**

IS INFLUENCED BY

DESIGN DECISIONS

Circular Material Library Walk