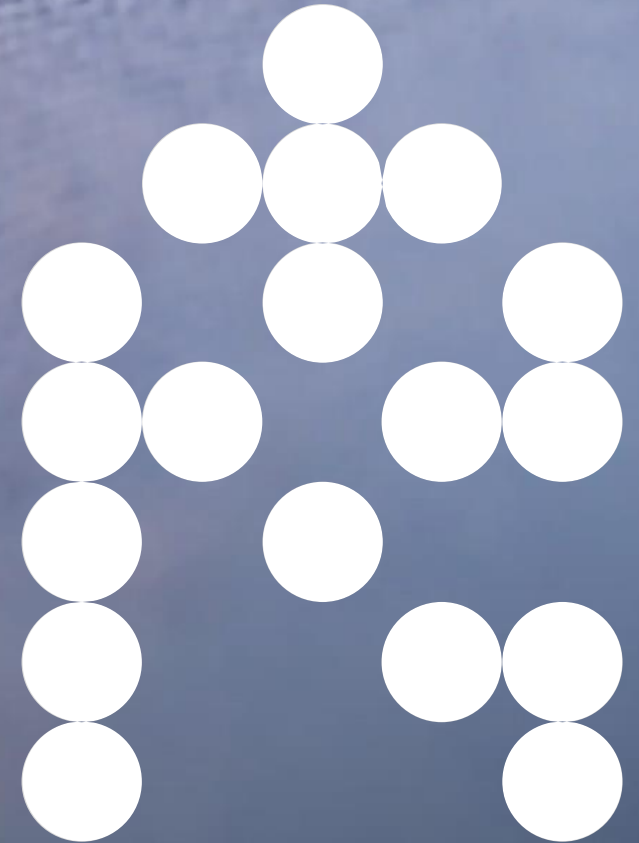



2023

resortecs.com

# Resortecs, Recycling made Easy

Resortecs,  
Recycling made  
Easy.





Resortecs makes garment recycling possible on an industrial scale and at a higher quality.

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**Less than 1% of all garments are effectively recycled.<sup>1</sup>**

\$500 billion worth of materials is lost every year.<sup>2</sup>

Fashion represents 10% of the yearly global CO<sub>2</sub> emissions.<sup>2</sup>

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1 - <https://www.ellenmacarthurfoundation.org/case-studies/an-open-access-circular-supply-chain-for-fashion>

2 - [https://www.researchgate.net/publication/340635670\\_The\\_environmental\\_price\\_of\\_fast\\_fashion](https://www.researchgate.net/publication/340635670_The_environmental_price_of_fast_fashion)

# Garments are difficult to recycle because they are difficult to disassemble.

Manual disassembly is expensive, not scalable & time consuming.

Mechanical disassembly harms the textile and results in downcycling.

To be compliant with the EU Sustainable and Circular Textiles Directives by 2024 garments must be designed for recycling today.

01

Extended Producer Responsibility (EPR\*).

02

Leftovers destruction ban.

03

Stricter EU directives against greenwashing.





What if we could reduce  
the cost of unsold inventory,  
help brands become  
compliant, and make all  
garments recyclable?

**Meet Resortecs:**  
a globally patented  
solution validated by  
the world's biggest  
fashion players.

**Designal.**



TOMMY HILFIGER  
Calvin Klein

**DECATHLON**

UTERQÛE Stradivarius ZARA ZARA HOME

**INDITEX**

Massimo Dutti PULL&BEAR Bershka OYSHO

**H&M**

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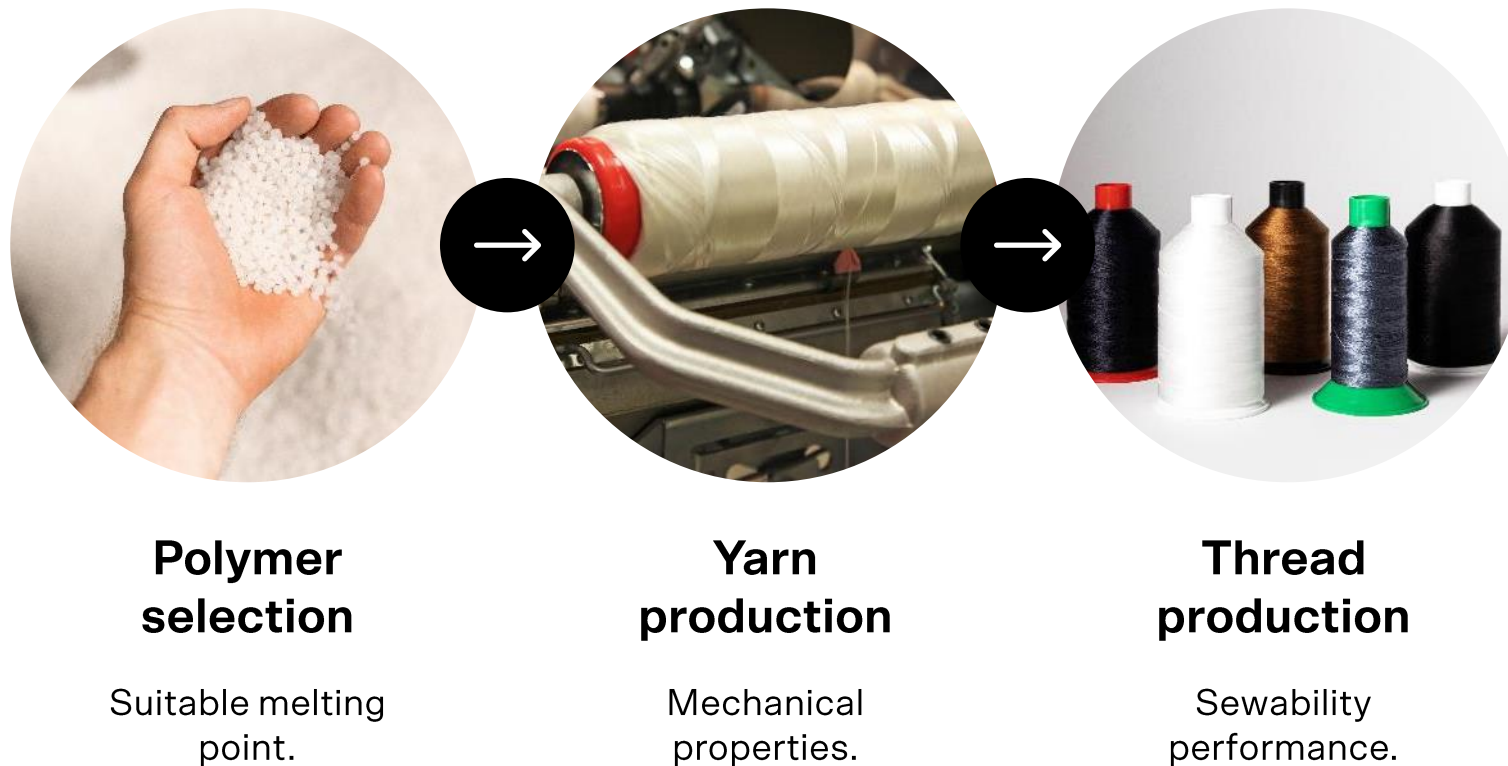
# Smart Stitch™

garments designed for  
disassembly by simply  
changing the thread.

- The heat-dissolvable threads melt at high temperatures (150-200°C), making the seams disappear automatically
- No changes in design nor manufacturing
- Washing, drying and ironing possible.



# Smart Stitch™ Development



# Smart Disassembly™

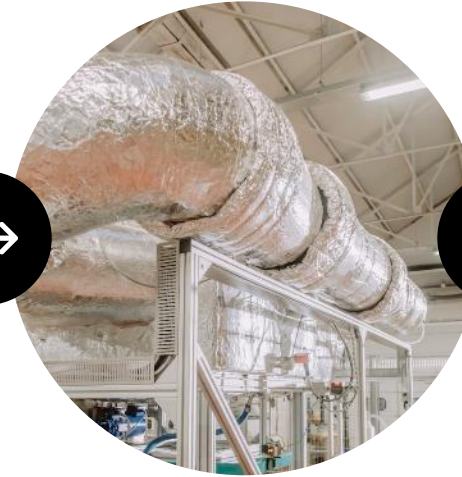
patented thermal systems to  
dismantle garments 5x faster.

- Industrial ovens processing up to 10 tons of textiles per day;
- No risk of damaging the fabric thanks to low-oxygen chamber;
- Closed-loop heating system ensuring low energy consumption.

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# Smart Disassembly™ Development



## Low-oxygen chamber

Avoiding fabric  
oxidation.

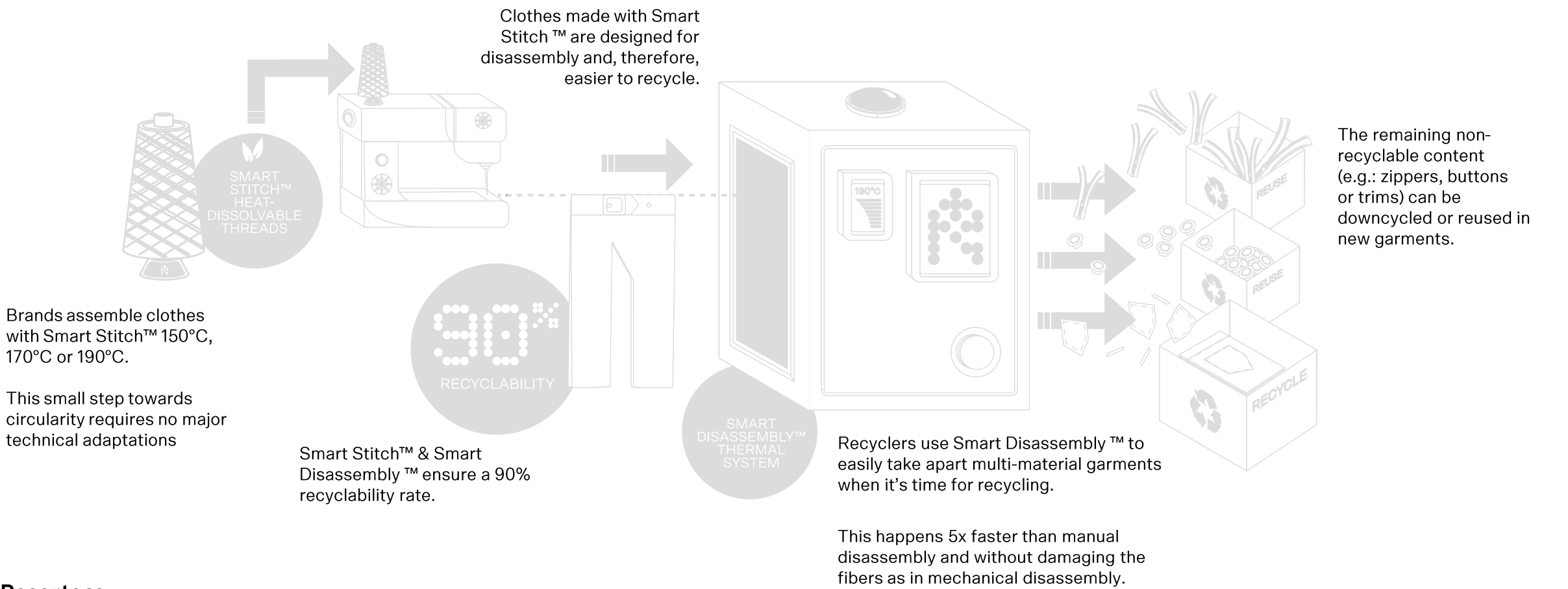
## Closed-loop heating system

Ensuring low energy  
consumption.

## Adjustable thermal & mechanical load

Increasing disassembly  
efficiency.

# The full solution



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# Status Quo

## Smart Stitch™ 190°C

Smart Stitch™ 190°C is a polyamide thread made from bio-sourced, continuous filament polyamide. It has been specifically designed for garments and materials that require high-temperature resistance (e.g. denim or workwear).

## Smart Stitch™ 170°C

Smart Stitch™ 170°C is a polyolefin thread made from continuous filament polyolefin. It has been specifically designed for accessories, footwear and outerwear.

## Smart Disassembly™

Current batch system processing up to 500kg/day. Continuous line (processing capacity of up to 10t/day) expected to be launched in 2024.

## Full solution roll-out

Smart Stitch™ + Smart Disassembly™ validated by first clients.





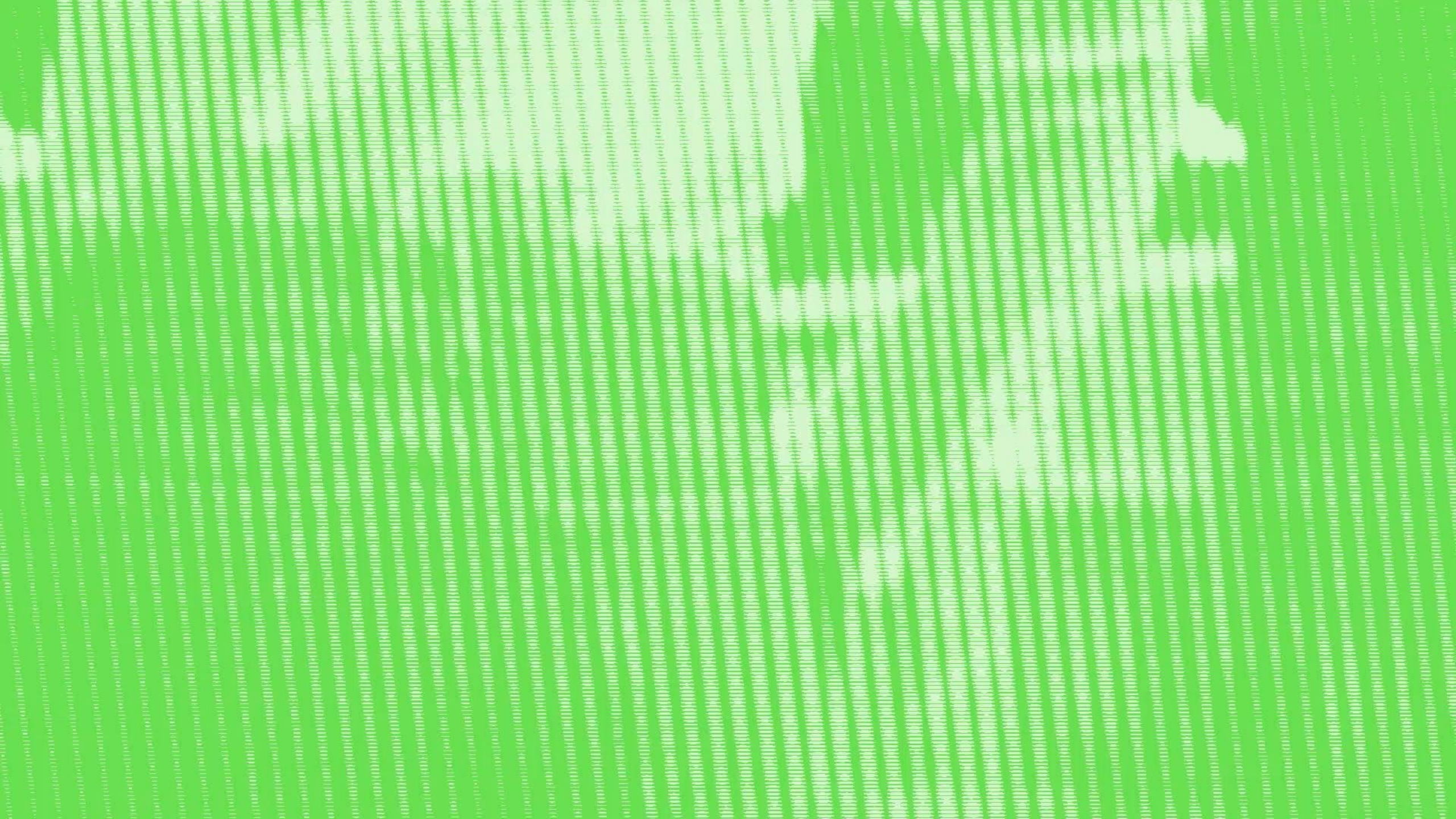


# Examples



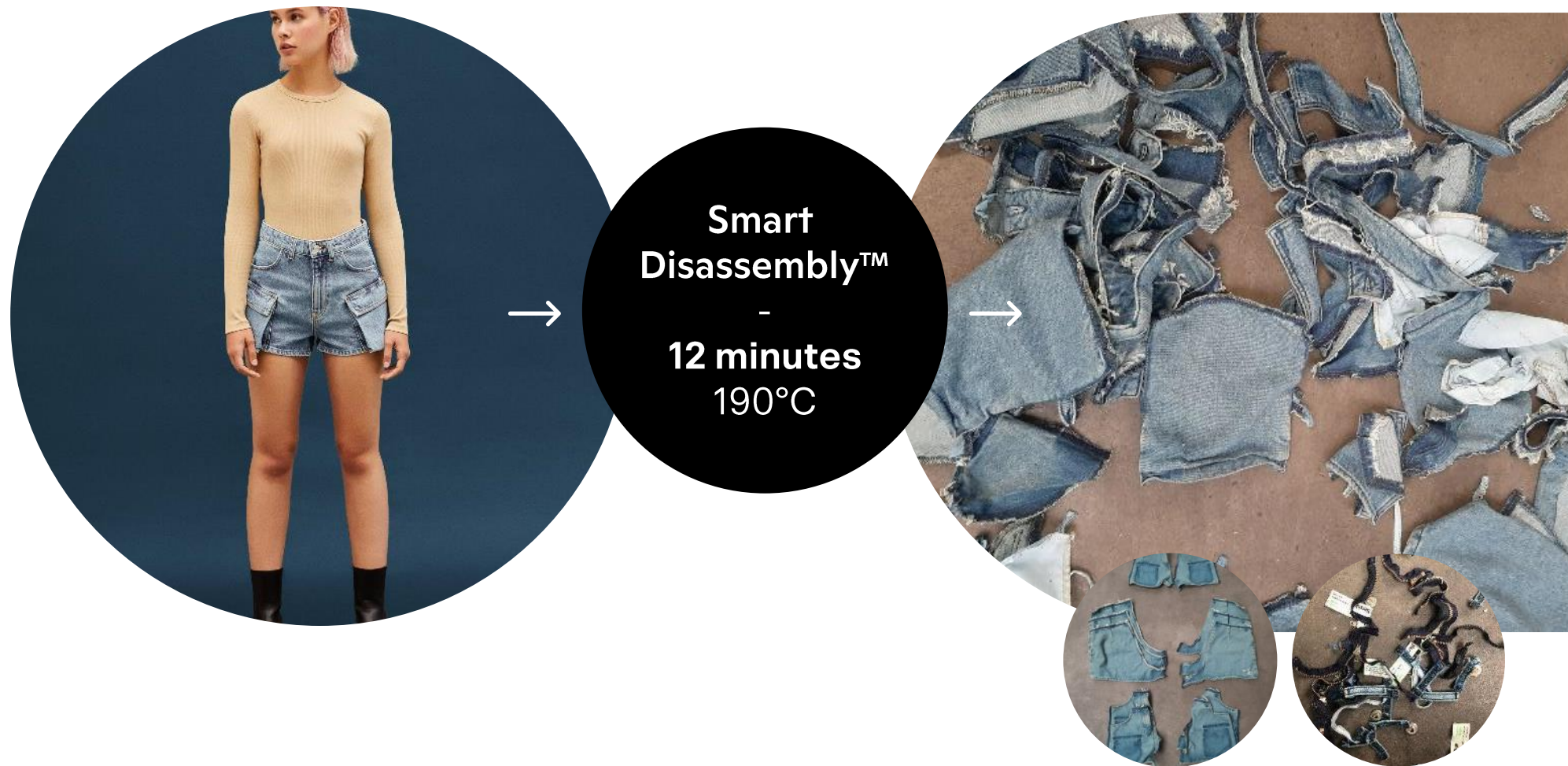
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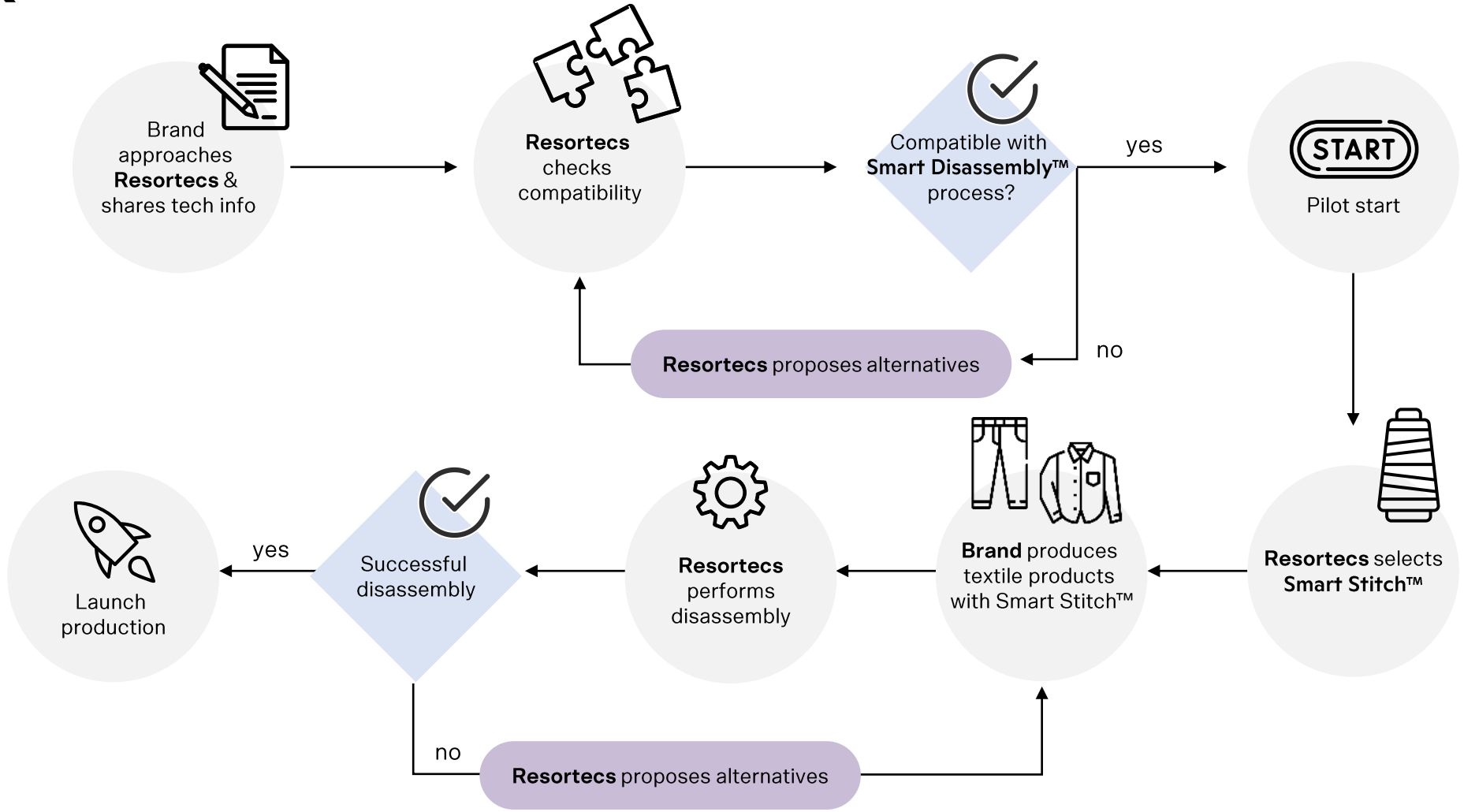
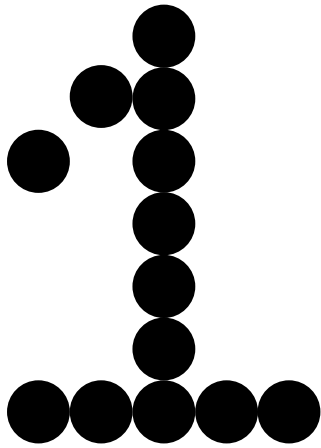
# Examples



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# How we work

## Pilots set-up & technical tests

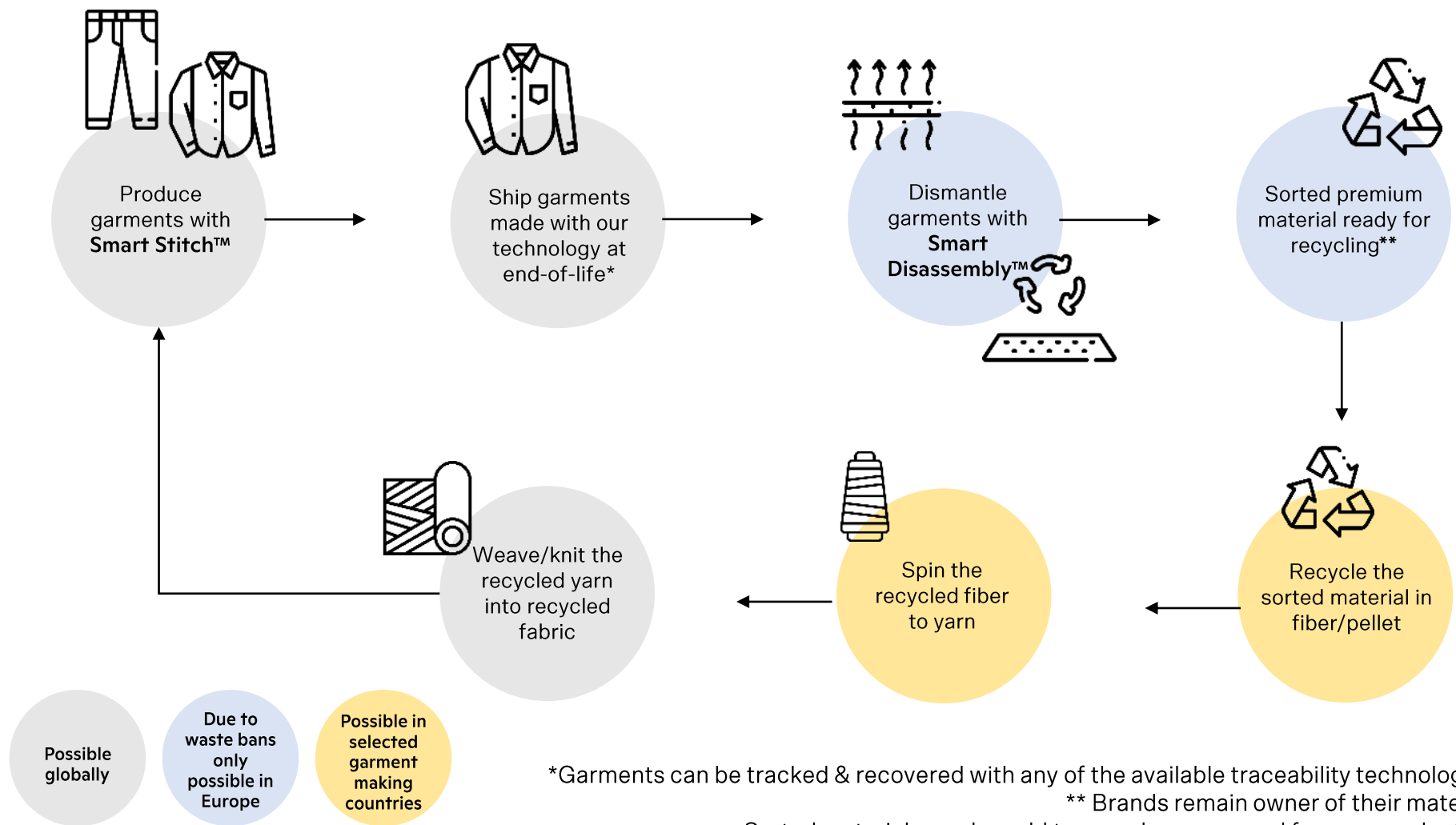
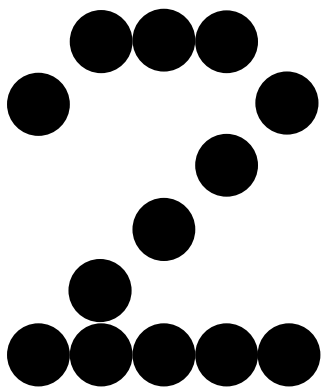


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# How we work

## Launching an industrial-scale collection



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\*Garments can be tracked & recovered with any of the available traceability technologies.  
\*\* Brands remain owner of their material.  
Sorted materials can be sold to recyclers or reused for own production.

A person with long blonde hair is seen from behind, holding a smartphone to take a photo of a recycling facility. In the background, a worker in a dark jacket is visible near a conveyor belt system. The scene is brightly lit, showing various pieces of recycling machinery and materials.

# The benefit for brands: a small change with big impact.

- Continuous supply of high-quality recycled materials
- Costs reductions in unsold inventory and waste management
- Environmental compliance: EPR-readiness, reduced water use, less waste, and carbon footprint reduction.



## The benefit for recyclers: high volumes of premium material

- Scalability: access to 5x more waste input at lower cost
- Clean, sorted and high-quality materials guaranteed
- Full traceability and an LCA-driven process



# Our LCA shows that combined with recycling, Resortecs cuts

- CO<sub>2</sub> emissions by **50%**
- waste generation by up to **80%**
- and water use by **98%**

9 INDUSTRY, INNOVATION  
AND INFRASTRUCTURE



11 SUSTAINABLE CITIES  
AND COMMUNITIES



12 RESPONSIBLE  
CONSUMPTION  
AND PRODUCTION



13 CLIMATE  
ACTION



17 PARTNERSHIPS  
FOR THE GOALS



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# Scan to download our externally reviewed LCA

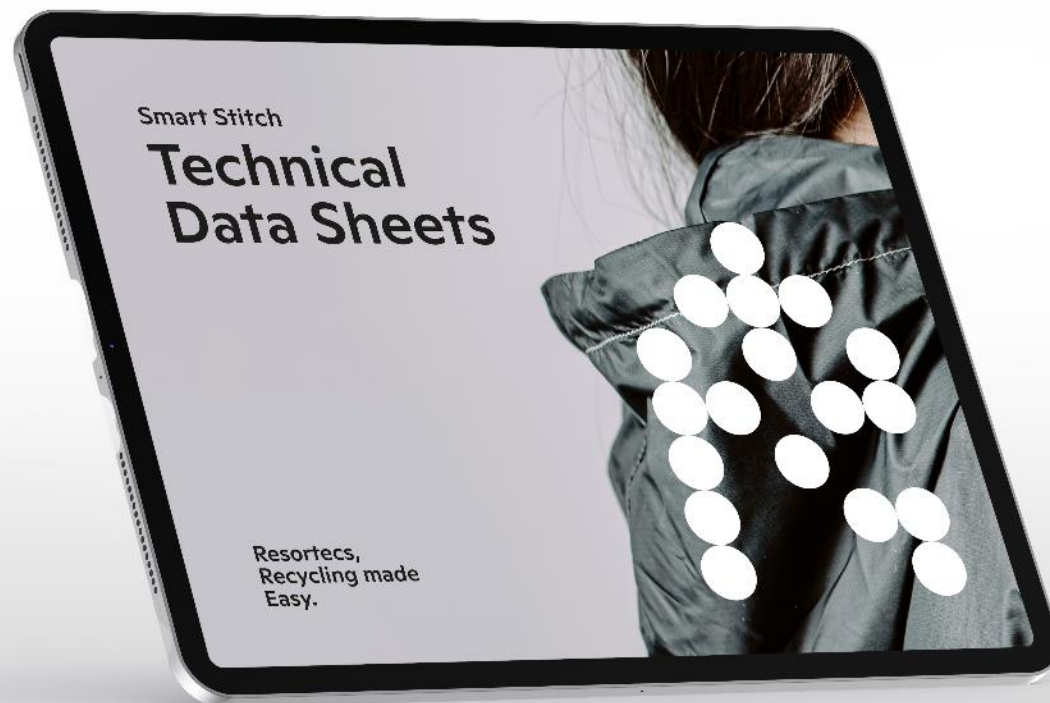


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A comparative Life Cycle  
disassembly & recycling  
denim production

# Scan to download our Technical Data Sheets

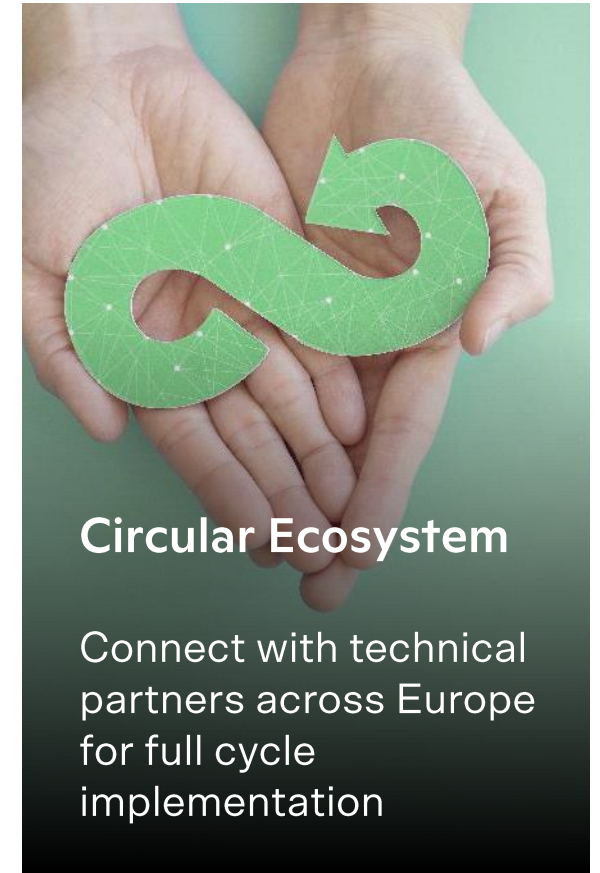
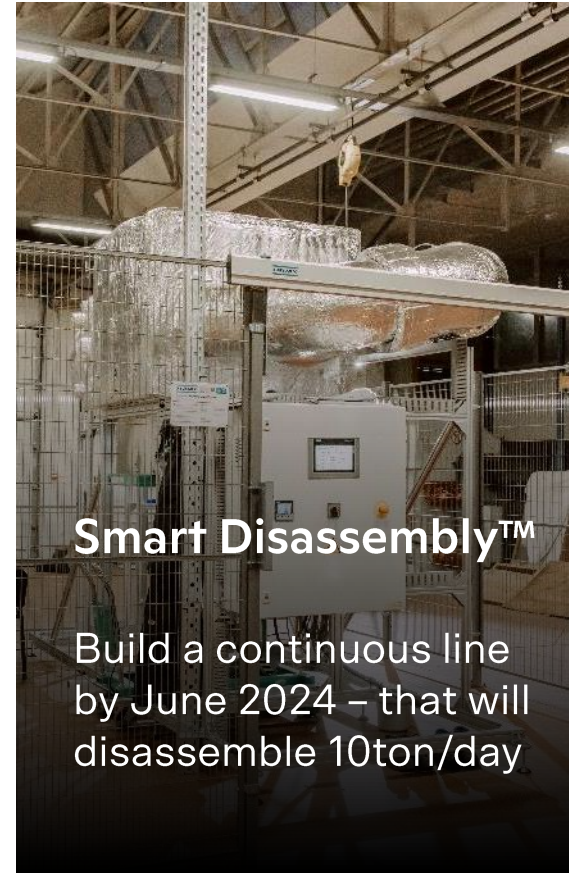
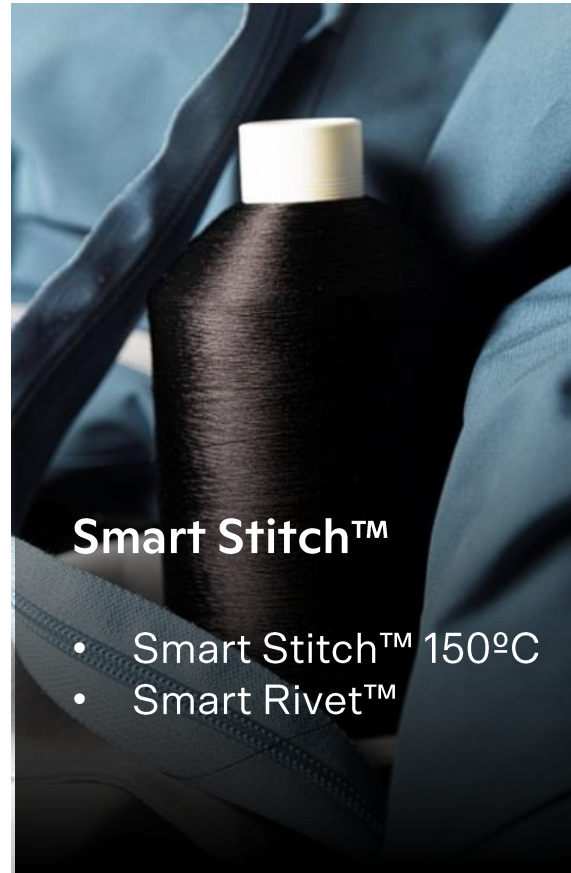


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# Next steps





The technology has been  
validated and we are ready  
for an EU-wide roll out.

Now we are looking for the  
right **recyclers, sorters &  
technical partners**

**Are you ready to join us?**



Resortecs,  
a technology  
so hot it will  
melt your  
mind.

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