SaXcell

From textile waste to high-quality fibers

Who are we?

Our mission is to make the textile industry more sustainable and circular by using significantly less water, land and chemicals.

We upcycle textile waste into high-quality virgin lyocell fibers by means of a groundbreaking patented innovative technology.

Started developing this unique innovation 15 years ago at Saxion University and since 5 years commercially active on the market.

SaXcell

What is SaXcell ?

SaXcell is a regenerated man made cellulose fiber made from cotton rich textile waste.

SaXcell uses a sustainable recycling process to generate high-quality lyocell fibers.

It is produced in a closed-loop system in which chemicals and water are continuously reused. Our current process uses 40 liters of water per kg SaXcell fiber.

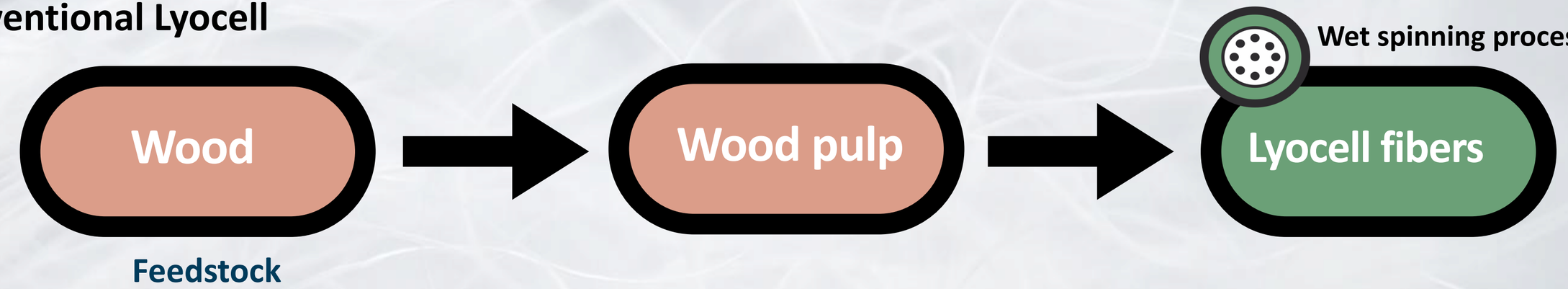
End of this year we will switch to SaXcell 2.0, the use of water will be reduced to 14 liters. Cotton production uses at least 2000 liter of blue water per kg cotton.

SaXcell technology removes dyes, impurities and synthetic materials, generating high purity cellulose pulp which is converted into lyocell fibers by means of a wet-spinning process.

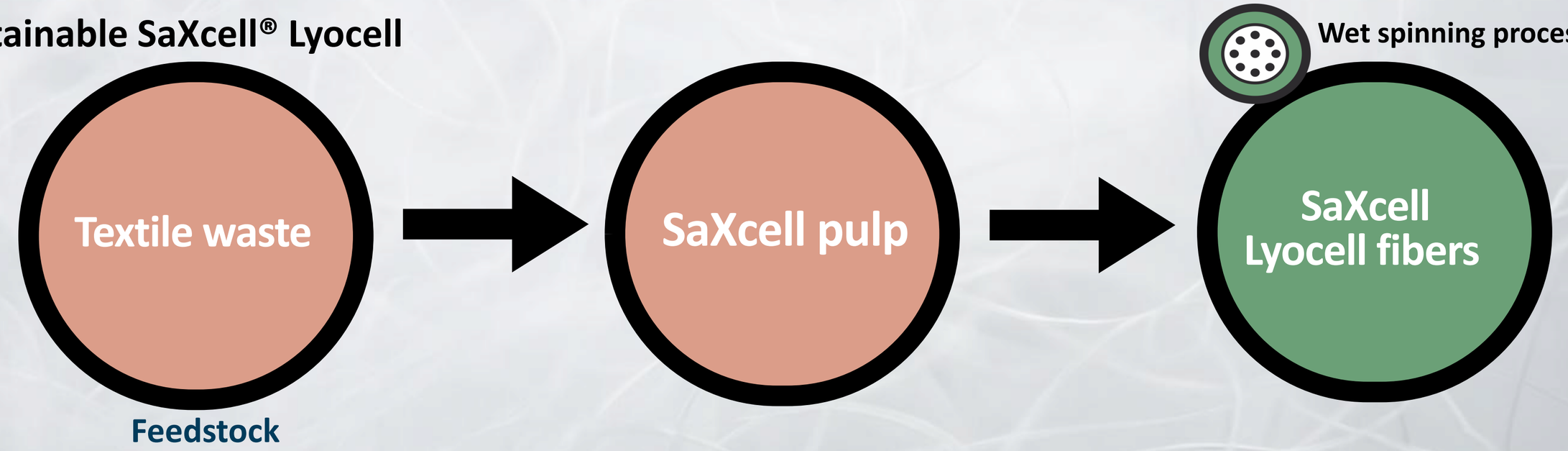
SaXcell

Lyocell Production process

Conventional Lyocell



Sustainable SaXcell® Lyocell



SaXcell

Major Benefits of SaXcell

SaXcell can be recycled multiple times without loss of quality.

SaXcell fiber absorbs up to 50% more moisture than cotton.

SaXcell is strong and durable so that products lasts longer.

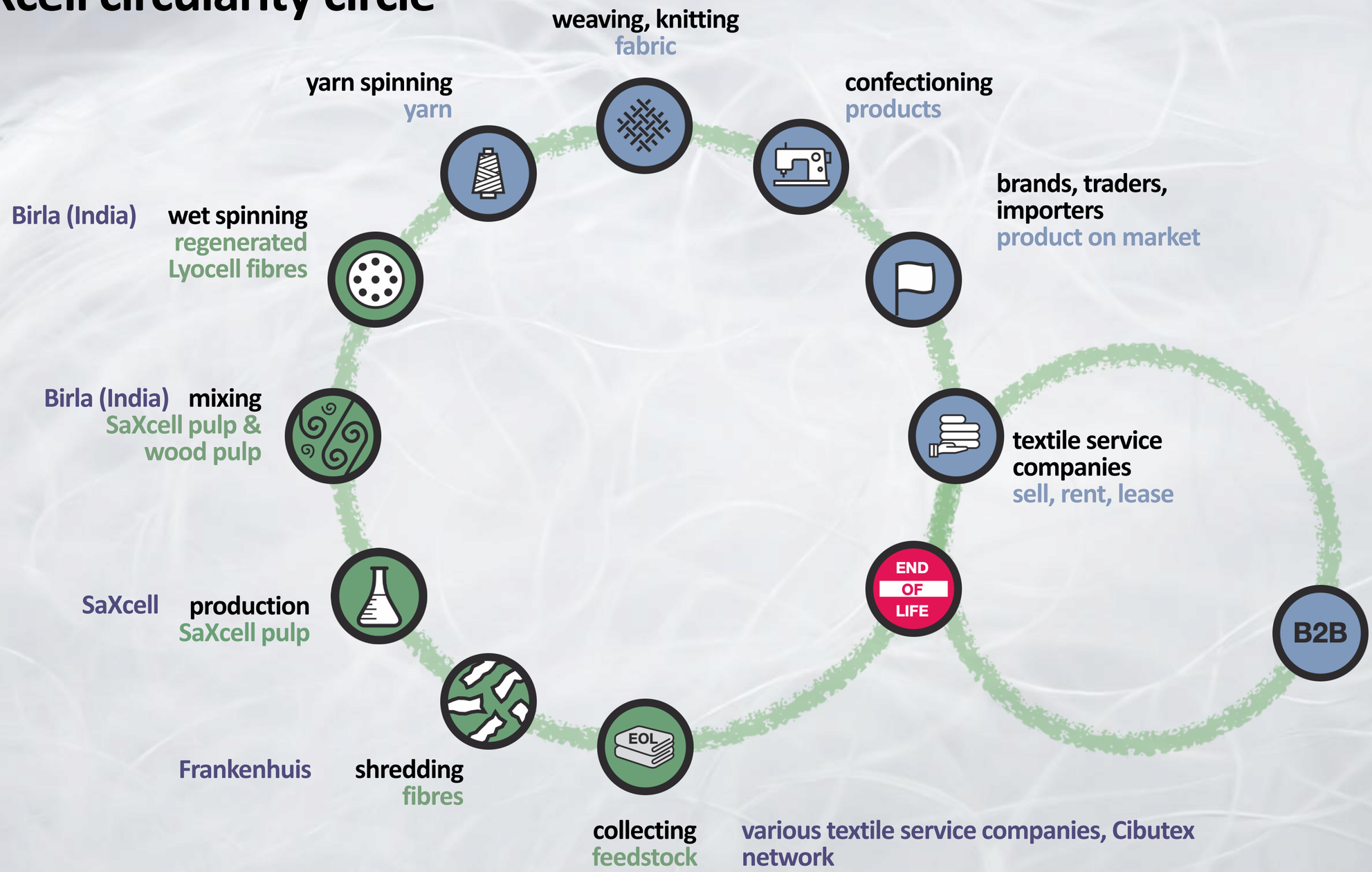
SaXcell fiber is versatile and blends well with other materials.

SaXcell requires 40% less dye, reducing environmental impact.

SaXcell production process uses 40 liter of water per kg of fiber.

SaXcell fibers are RCS certified and have a dedicated tracer.

SaXcell circularity circle



SaXcell

SaXcell collaboration Textile Service Companies

Textile Service Companies are of high importance for SaXcell and the other way round, SaXcell is of great importance for them.

- TSC waste streams create feedstock for the SaXcell technology.

High level cotton rich textile waste is extremely suitable feedstock for our pulping technology and efficient to use in the supply chain.

- Products made with SaXcell are of high quality and lasts longer.

SaXcell has a high fiber length which creates products with a high quality level that are durable and have long service life expectation.

- SaXcell fiber is soft and versatile, can be used is a broad range of products. From towels, duvet covers, bedding until workwear.

Our circular innovation

At the moment SaXcell L30 is manufactured by our partner company in India and the feedstock for SaXcell is merely pre-consumer textile waste.

We are building a SaXcell pulp production factory in The Netherlands with a production capacity of at least 750 tons pulp annually and can be scaled up to 3000 tons. This allows us to scale up to next level technology SaXcell 2.0.

SaXcell pulp production unit will use 100% post-consumer textile waste and we will be able to increase our percentage of recycled content in the SaXcell pulp to produce a higher level upcycled content SaXcell fiber L40 and L50.

SaXcell

Partnership with VODDE is of great importance for SaXcell and the other way round. We compliment each other.

Vodde's expertise in mechanical recycled fibers and yarns combined with our expertise in chemical recycled fibers are a perfect match for succes.

The advantage is that we create stronger, durable products that lasts longer. Due to sustainable combination of mechanical recycled with chemical recycled fibers the recycled content in products increase without compromising on quality.

DIBELLA

WEVOTEX
functional and creative textiles

Blycolin

Major advantages of SaXcell fiber in Bed linen & Towls:

- Because of long fiber length creates strong and durable products who lasts longer.
- Absorbs up to 50% more moisture than cotton and has a high breathability rating.
- Is versatile and blends very well with other materials like cotton and linnen fibre.
- Can be recycled within SaXcell technology multible times while maintaining quality.

SaXcell

RÜTEX YARNS

What our partnership with Rütex means for us and our partners

Rütex have the knowledge and experience to convert mechanical and chemically recycled fibers into reliable, durable and commercially successfull textile products.

SaXcell fibers creates opportunities

Deep textile expertise transforms that opportunity into sustainable business value.

SaXcell

Together we are offering a Hybrid solution

Mechanical & Chemical Recycled Fiber Blends

To Replace:

Virgin Fiber + Mechnical Recycled Fiber

SaXcell

The future could become

Mechanical Recycled Fiber & Chemically Recycled Fiber

Where:

- Mechanical recycled fibers contribute volume and circularity.
- Chemically recycled fibers contribute performance and durability.
- More cost-effective than using chemically recycled fibers alone.

SaXcell

Value Proposition for Brands

Achieving Three Objectives Simultaneousley

- Sustainability
- Performance
- Commercial Viability

Together, we can turn sustainability ambitions into comercially successfull Circular textile solutions.

Thank you!

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