

Born from bio-renewable materials, NOOSA™ is 100% recyclable thanks to our patented technology, NOOCYCLE™. In other words, we regenerate old textiles back into a virgin-quality fiber and this, endlessly.

NOOSA™ is a solution to shift towards a circular textile industry, close the loop and change the current wasteful system.

Less than 1% of textile fiber is being recycled.

NOOSA™ was born from the observation of the textile sector, where currently, less than 1% of textile fiber is being recycled. Our goal is to revolutionize this industry by reducing textile waste at post-industrial, pre- and post-consumer level.

Currently, we offer fibers and yarns to manufacturers and brands that transform it into end-products. Once the product reaches its end of life, it is re-collected, and NOOSA™ guarantees to recycle it back into a virgin-quality fiber to reach a full circular economy.



**NOOSA™**  
The bio-renewable textile fiber,  
endlessly recyclable.

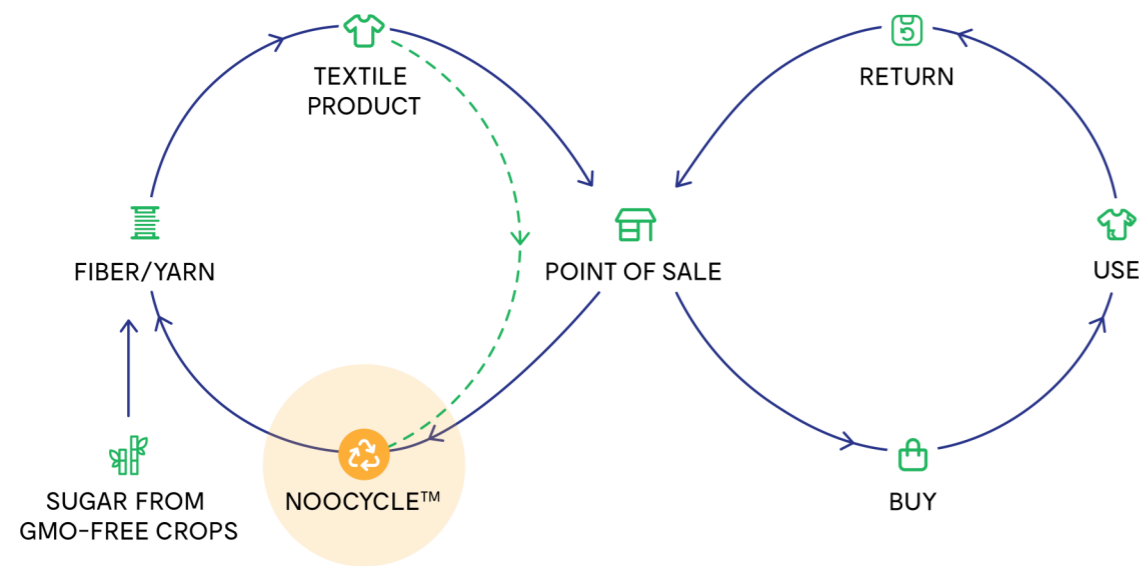
**2019**  
Year of establishment

**€500K**  
Earned by winning the 2021  
Innovative Starters Award

**5**  
Patents

**BELGIUM**  
**BRUSSELS**  
Headquarters location

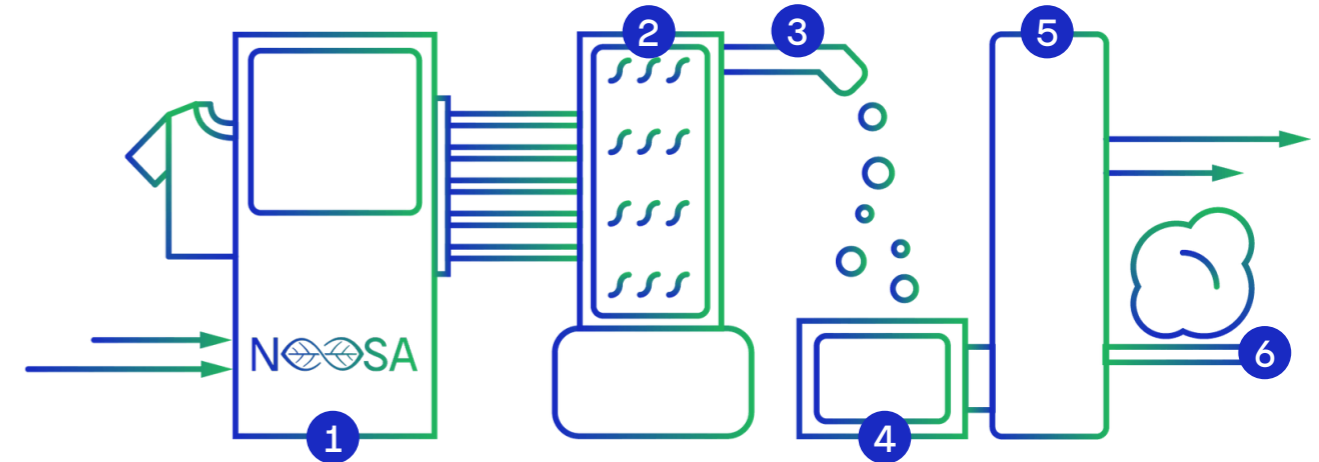
Our textile fiber is 100% bio-based and 100% recyclable, ensuring full circularity at the end-of-life.



Following our Life Cycle Assessment (2020), NOOSA™ fiber offers a 30% reduction in CO2 emission compared to conventional cotton.

On the long run, it avoids the depletion and also decreases the use of natural resources (e.g., 50% less water usage compared to conventional cotton).

**30%** CO2 emission reduction  
(VS conventional cotton)



NOOCYCLE™ is a patented chemical recycling technology. It is unique since it allows the separation of NOOSA™ fiber from any type of component —such as additives, pigments, coatings and other material blends — to recover a 100% virgin-quality fiber, without deterioration or loss of properties.

**The recycling at the end-of-life is the added value of NOOSA™**

This contrasts with the recycling of cotton and polyester, which is mainly done mechanically. Mechanical recycling only allows up to 30% recovery, and deteriorates fiber. This is known as a downcycling process, as this leads to a lower value product application.

NOOSA™'s recycling takes place in Belgium with the following steps:

- 1 Shredding** of the collected clothes. The clothes are shredded and turned into a bulk blend of fibers.
- 2 Solubilization & filtration** into a green solvent to allow the separation of NOOSA™ fiber from all other compounds.
- 3 Depolymerization** The solubilized NOOSA™ fiber enter a process turning it back into lactic acid.
- 4 Purification** of the monomer. The recovered solution is filtered and purified to isolate the lactic acid.
- 5 Re-polymerization** of the lactic acid to produce polylactic acid pellets.
- 6 Extrusion** of a virgin-quality NOOSA™ fiber.

NOOSA offers three different products to customers:



**STAPLE FIBER**



**SPUN YARN**



**FILAMENT YARN**

Our products' applications:



**APPAREL**



**ACTIVEWEAR**



**UNDERWEAR & LOUNGEWEAR**



**HOME & UPHOLSTERY**



**BEDDING**



**WORKWEAR**

In addition to its bio-based and circular nature, NOOSA<sup>®</sup> fiber features unique properties.



**INCREASED BREATHABILITY**

NOOSA<sup>™</sup> fiber allows body moisture and vapors to be released to ensure high performance and avoid discomfort.



**LOW ODOR RETENTION**

Thanks to its breathability and low moisture regain, NOOSA<sup>™</sup> fiber allows body's natural humidity and odor to evacuate.



**LOW FLAMMABILITY**

NOOSA<sup>™</sup> fiber is low flammable and more resistant compared to cellulosic, a key advantage for home and children applications.



**BACTERIOSTATIC**

NOOSA<sup>™</sup> fiber prevents from bacterial growth, ensuring a better hygiene on a daily basis.



**HYPOALLERGENIC**

Due to a pH level similar to the skin, NOOSA<sup>™</sup> fiber is compatible and ideal for people with sensitive skin.



**UV STABILITY**

It shows great resistance to ageing and UV exposure, making it ideal for outdoor applications and home applications.

