

Dutch innovation start-up that develops materials from waste keratin protein fiber is looking for a textile weaving mill interested in new technology in the framework of a commercial agreement with technical assistance.

## Summary

Profile type	Company's country	POD reference
<b>Technology offer</b>	<b>Netherlands</b>	<b>TONL20240903004</b>
Profile status	Type of partnership	Targeted countries
<b>PUBLISHED</b>	<b>Commercial agreement with technical assistance</b>	<b>• World</b>
Contact Person	Term of validity	Last update
<a href="#"><b>Giovanni CHIACCHIO</b></a>	<b>3 Sep 2024</b> <b>3 Sep 2025</b>	<b>3 Sep 2024</b>

## General Information

### Short summary

Dutch innovation start-up that develops materials from waste keratin protein fibers looking for a textile weaving mills interested in new technology. The company provides a high-performance alternative to synthetic or animal-derived fibers. One that is fully natural, incredibly durable and will keep you warm in glacial conditions, without relying on (micro)plastics, virgin materials or cruelty. The company wishes to establish long-term cooperation supplying agreements under a commercial agreement

### Full description

The textile industry is one of the world's biggest polluters, relying largely on oil-based fibers or the mass farming of livestock. A Dutch innovation start-up has developed a yarn made of waste keratin protein fiber (hair) which provides an alternative to these fibers: one with incredible strength (one ponytail could hold two elephants) and all the benefits of wool, without the cruelty or (micro)plastics. And one that, crucially, grows on our own heads.

They transform human hair – namely, waste from hair salons – into natural, durable, and traceable textile fibers. For salons, this means a solution to hair waste. For the textile industry, this means a repurposed, ethical, and high-

performing source. But above all, it challenges the way we consume textiles, knitting us – humans – into a textile's life cycle, literally.

Their process not only reduces waste and conserves natural resources but also paves the way for high-quality, eco-friendly products. Partnering with them means joining a visionary movement towards a circular economy, where every strand of hair contributes to a greener, more sustainable future.

They are looking for a textile weaving mills interesting in new technology. The company wishes to establish long-term cooperation supplying agreements under a commercial agreement with technical assistance.

#### Advantages and innovations

The benefits of human hair textiles:

- \* Hypoallergenic Material: Their materials are hypoallergenic, ensuring a safer and more comfortable experience for users with allergies or sensitivities.
- \* Antibacterial: Their products possess antibacterial properties, promoting cleanliness and reducing the risk of bacterial contamination.
- \* Plastic and Toxic-Free: They prioritize sustainability and health by offering materials that are free from plastics and harmful toxins, contributing to a safer environment.
- \* Thermal Protection: Their materials provide thermal insulation, regulating temperature and enhancing comfort in diverse environments. They know this, because they have knitted their fibers into a Dutch hair jumper and woven them into a tweed-like blazer. They even tested their parka prototype atop the Aconcagua (at an altitude of 6961 meters), where it kept its wearer warm in -30°C.
- \* Moisture Regulation: They engineer their materials to regulate moisture, keeping users dry and preventing the growth of mold or mildew.

#### Technical specification or expertise sought

Sought responsible producers - weaving mills that operate in accordance with the principles of sustainable development and care for the natural environment.

#### Stage of development

**Available for demonstration**

#### Sustainable Development goals

- **Goal 12: Responsible Consumption and Production**
- **Goal 8: Decent Work and Economic Growth**
- **Goal 15: Life on Land**
- **Goal 11: Sustainable Cities and Communities**
- **Goal 13: Climate Action**
- **Goal 9: Industry, Innovation and Infrastructure**

#### IPR Status

**Secret know-how**

IPR Notes

## Partner Sought

### Expected role of the partner

Sought responsible producers - weaving mills that operate in accordance with the principles of sustainable development and care for the natural environment.

### Type of partnership

**Commercial agreement with technical assistance**

### Type and size of the partner

- **SME 11-49**
- **Big company**
- **SME 50 - 249**

## Dissemination

### Technology keywords

- **03005007 - Textile fibres**
- **02007020 - Biobased materials**
- **02007018 - Advanced Textile Materials**
- **03005008 - Weaving related to Textiles Technology**

### Targeted countries

- **World**

### Market keywords

- **07004001 - Clothing, shoes and accessories (including jewellery)**
- **07004003 - Home furnishing and housewares**
- **08004004 - Other pollution and recycling related**
- **09004003 - Textiles (synthetic and natural)**

### Sector groups involved

- **Textiles**
- **Creative Industries**