



FibreScanner -
measuring system for length measurement of
long natural and man-made fibres

Dr. Hubert Schmid & Isabel Schmid



Why is fiber length important? For whom?

- Producers, processors and testing institutes of
- **natural and technical fibres**
 - **fiber reinforced composites**

What is the benefit?

Whoever knows the length and the length distribution can save money.

Example wool fibers:

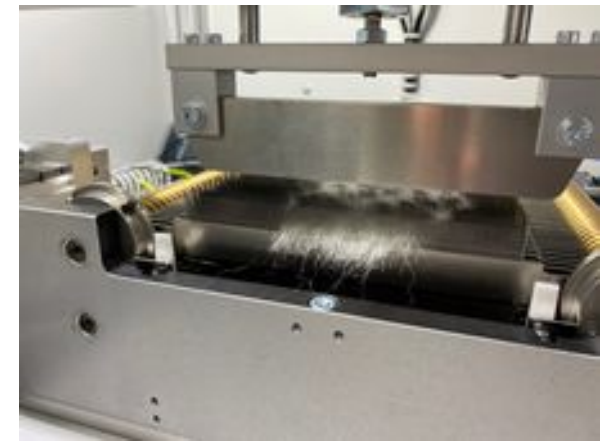
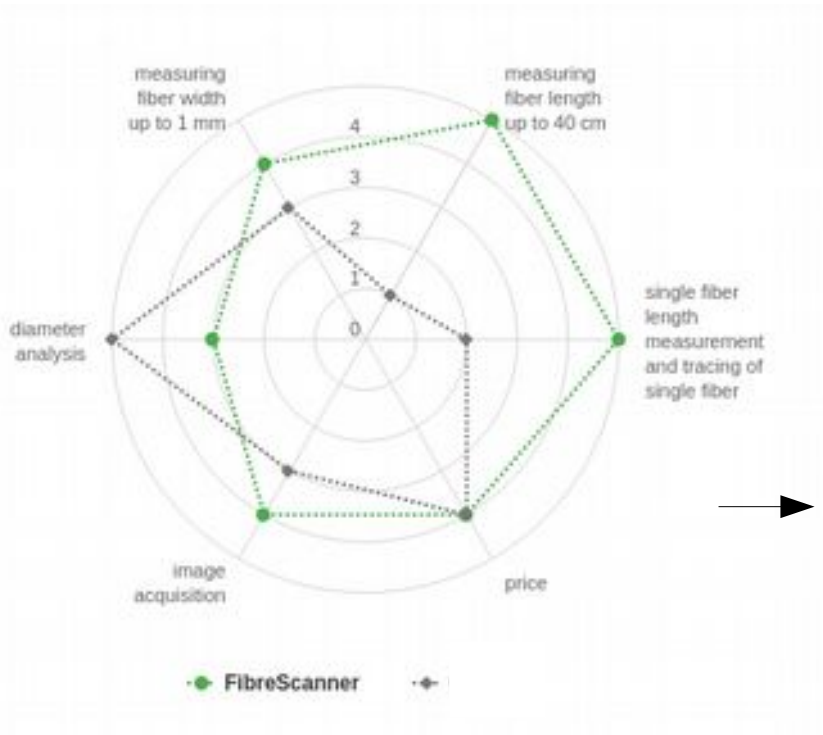
By determining the length of all individually measured wool fibres, the fibre material can be classified. Depending on the length of the fibres, you get yarns of different qualities.

The length of the fibres therefore has a direct influence on the price of the yarns.

Example natural fiber composites:

In the automotive industry today, natural fibres such as flax, hemp or jute are used to reinforce components. If you know the length, you can better control the strength of a component.

Strength of FibreScanner



- Length measurement from 2cm to 40cm
- Single fiber measurement instead of measuring fiber bundles

→ FibreScanner is the ideal successor for the Almeter reference system, which has not been manufactured for 20 years. Potential customers are waiting for our solution.

Research partners pilot system:



Support programmes for research partners:

- Innosuisse (2019): proof of functionality
- ZIM (DE) (2020): pilot system



flax fibers

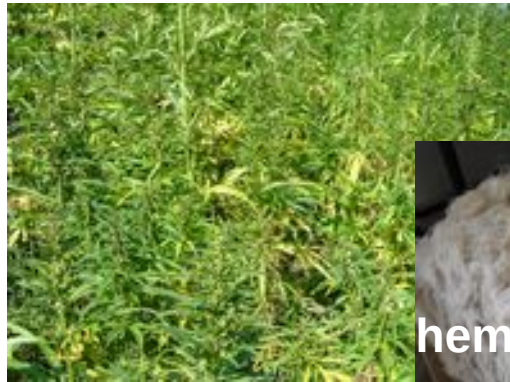


wool fibers



Environmental benefits:

The classification of long fibres makes the natural raw materials more interesting for the industry.



hemp fibers

By using the FibreScanner the positive properties of natural fibres will become more important:

- lower production costs,
- better CO₂ balance for materials,
- low density (weight saving),
- good sound insulation