



- The textile fiber of the future



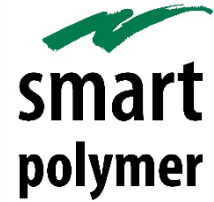
How does Lyohemp® differs from competing products?
What is the further development compared to Lyocell fibers?

- Over 30 years of experience in the development of sustainable cellulose-based textile fibers.
- Smartpolymer GmbH is a globally sought-after partner for the industrial transfer of Lyocell fiber production (currently USA, China, Portugal, Finland, Australia, etc.).
- Patented Lyocell process (ALCERU®) guarantees 100% cellulose utilization and permanent additional function in the fiber (climate regulation, skin care, antibacterial/antiviral/antifungal effect).
- Technology Readiness Level is currently in the 6 - 8 range, for some products at TRL 9





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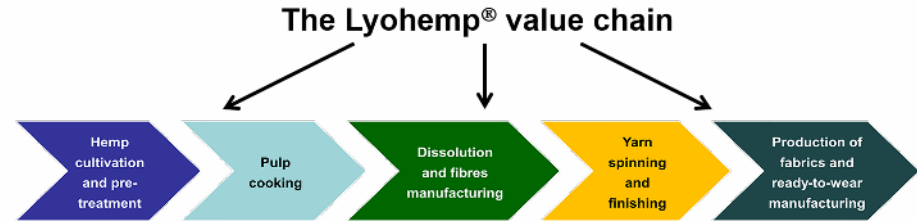
What expertise is behind this innovation?

- Lyocell fibers are bio-based, biodegradable and can be used in many different ways - in clothing and technical textiles.
- **New:** Lyohemp® replaces the wood pulp with fast-growing hemp pulp (medical hemp / industrial hemp). Previous agricultural residues (straw and shives) are thus made usable.
- Multiple utilization of the plant prevents additional land or water consumption.
A 1-hectare cannabis field can replace almost 100 hectares of trees.



Conclusion: Lyohemp® offers an opportunity for new business models in agriculture and textile processing.

- Excellent basis for regional closed value chains = contribution to technological sovereignty and less global dependency.
- Lower logistics costs significantly reduce CO₂ emissions.
- Hemp cultivation offers an economic alternative in the context of re-cultivating opencast lignite mining sites.
- Other agricultural crops as a pulp supplier are conceivable in the future (oil flax, wheat straw).



smartpolymer GmbH – contact persons



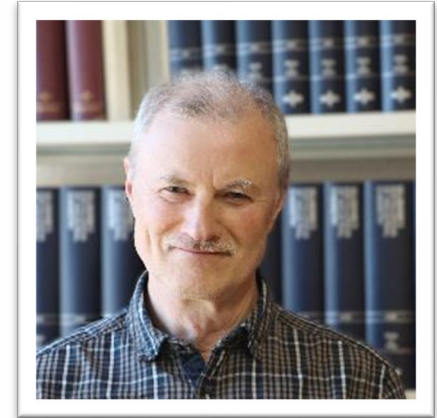
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