

Positive climate footprint for Silphie-fibers confirmed

Fraunhofer UMSICHT creates a life cycle assessment for OutNature

Neckarsulm, July 29, 2021. OutNature is a subsidiary of PreZero specializing in the production of sustainable fiber and paper products from the Donau-Silphie, an energy crop. The positive climate footprint for Silphie-fibers has now been officially confirmed in a life cycle assessment issued by Fraunhofer UMSICHT.

The cup plant Silphium is a perennial culture, that is insect-friendly and also has a positive impact on erosion and water protection. In addition to exclusive energetic use, OutNature has also found an added material use for Silphie-fibers as a new renewable raw material. Producing fibers from Silphium instead of wood pulp has less of an environmental impact, particularly in terms of the energy and water required. "Generating biogas from Silphium and its conversion into electricity has a positive effect on the overall balance sheet", explains Dr. Daniel Maga, Sustainability Assessment Group Leader at Fraunhofer UMSICHT.

The life cycle assessment also shows numerous positive environmental effects of Silphie-paper compared to pulp board. Fresh water is eutrophicated to a lesser extent, ozone depletion and smog formation are at a lower level, resource use of materials and metals is more environmentally friendly, and land use is improved due to the Silphium's high surface yield.

"The results from the Fraunhofer analysis provide us with a significant foundation to further advance the market entry of OutNature and to inspire clients with our innovative packaging solutions." explains OutNature Managing Director Thomas Tappertzhofen. "Silphie-fibers have enabled us to establish a regional, renewable raw material with a transparent supply chain, which is also practical from an ecological perspective as a pulp substitute".

Fraunhofer UMSICHT examined the potential environmental impact of paper and fibers made of Silphium as opposed to conventional pulp and packaging paper based on fresh fibers made in Europe (Data source: ecoinvent). The analysis considered both the cultivation of Silphium as biomass along with complete material and energetic use. As for the production of pulp board as well as for der production of Silphie-paper, part of the biomass is used as energy.

There is further information from OutNature at: www.out-nature.de. More information about PreZero can be found at our [press portal](#).

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Image caption: Fraunhofer UMSICHT confirms the positive climate balance of OutNature's Silphie-fibers in a life cycle assessment.

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