

Press Release  
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## **Embarking on a Paradigm Shift: Ecological Cosmetics Move from Niche to Mainstream**

The cosmetics industry stands on the threshold of a significant evolution. Ecological products are about to transcend the realm of niche markets and become the new norm.

### **The new era requires innovative solutions**

A generation of consumers, demanding and driven by environmental consciousness, has propelled clean beauty into the forefront, challenging cosmetic manufacturers to redefine their approaches to raw materials and operations.

Responding to this call for change, CH-Bioforce emerges as a pioneering force, armed with innovative solutions that embrace sustainability. Their groundbreaking Bioforsense technology possesses the power to revolutionize the industry by transforming side streams from various sectors into high-value consumer products, opening up exciting possibilities in the realm of clean beauty.

One notable breakthrough lies in the replacement of non-renewable chemicals with sustainable alternatives. Bioforsense technology enables CH-Bioforce to fractionate diverse biomasses into their elemental components: hemicellulose (Xylense), lignin (Lignense), and cellulose (Cellense).

These biopolymers offer exceptional purity and yield, making them ideal substitutes for non-renewable raw materials. Moreover, they find application as binders, fillers, emulsifiers, textile fibers, and even in medical contexts.

### **Side streams create new ecological opportunities for the cosmetics industry**

**Petri Tolonen**, CEO of CH-Bioforce, underscores the significant potential of Xylense as a polymeric and natural hemicellulose raw material for the cosmetics industry.

– With its water solubility, biodegradability, and flexible structure, Xylense serves as a versatile ingredient. Its remarkable properties make it an excellent choice for stabilizing cosmetic products, serving as an emulsifier, co-emulsifier, surfactant, foaming agent, or humectant. Hand, nail, and facial care products, among others, stand to benefit from the remarkable qualities of Xylense, says Tolonen.

At the heart of CH-Bioforce's innovation lies the utilization of industrial and agricultural side streams that would otherwise be discarded as waste. Collaborating with numerous international brands, the company endeavors to find sustainable and economically viable solutions for repurposing global side streams generated by different industries.

By harnessing the potential of biomass—such as straw—as a raw material for polymeric hemicellulose, CH-Bioforce effectively transforms overlooked resources into valuable components. Additionally, the separation and further processing of cellulose and lignin, which constitute 75% of lignocellulosic biomass, offer additional avenues for sustainable applications.

In their unwavering commitment to quality, CH-Bioforce's technology ensures that no compromises are made. The scalable nature of their processes empowers companies, both large and small, to leverage their innovations. Through licensing the Bioforsense technology, organizations gain access to raw materials derived from their own production side streams, allowing them to create products that align with consumers' demands.

Tolonen sees the impact of Bioforsense technology is exemplified by its successful integration into the cosmetics industry.

– Through the implementation of CH-Bioforce's Xylense as an emulsifier, beauty products achieve new levels of effectiveness and desirability. Its transformative properties enhance lotions, ensuring optimal moisturization while imbuing them with a gentle essence of pure nature.

The circular economy emerges as the resolute solution to the industry's challenges. CH-Bioforce champions the "from waste to value" ethos, positioning itself at the forefront of the circular bioeconomy movement. Unrestricted by specific biomass types, their technology stands ready to harness the potential of diverse biomasses, transforming them into sustainable alternatives to non-renewable materials.

## **More information**

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