

# Use of raw material in natural cosmetics

LoondSPA cosmetic products incorporate Väraska lake mud and mineral waters – both powerful mineral resources. The brand name of the company LoondSPA called loond° originates from a belief of a pure and strong nature that feeds the body, spirit and mind in its naturalness. The raw material comes from the upper Northern latitudes of Earth, where the growth environment is rough, but nature is accordingly tougher and stronger. LoondSPA has chosen the best ingredients and natural resources that are ecologically clean.

## loond°

### **Industrial need**

The company wanted to improve their knowledge about the raw material used as a key component in their cosmetic products. LoondSPA cosmetics include Väraska lake mud and mineral waters as the main ingredients in the production of make-up products, therefore the company wished to explore the potential use of the lake mud. If the lake mud could be compared to other muds, commercial and non-commercial, the findings would give the company significant insights on the limitations and possibilities of the main component of the company products.

### **How did the company managed to get the right research support?**

By participating at the event "DEMODAY" hosted by the University of Tartu, LoondSpa received

information about the possibilities to get research support. The contact was taken directly to the University of Tartu acting in its capacity as the Industrial Research Center under the Baltic TRAM project. The following dialogue with researchers led to submission of application through the Estonian ADAPTER network.

### **Experiment**

During the experiments researchers performed an analysis of antioxidant powers complemented by the microbiological study, by comparing the lake mud to other commercial and non-commercial muds.



**Microbiological analysis for LoondSpa mud samples.**

### **Technique and materials**

The experiment was performed by applying the complex spectroscopic analysis of the antioxidant powers of the samples (ABTS radical, DPPH radical, FRAP, through the reduction of hydroxyl-radical). Microbiological seeding of the samples together with characterization of the colonies of microorganisms was done, as well as ultrasonic processing of the samples with high-intensity sonic power. High-temperature and low-temperature treatment and fractioning with organic solvent of the samples was performed. The analysis included such materials as the processed lake mud, sea mud, and peat mud. As a comparison AHAVA dead sea mud, Värška water and Blue lagoon, silica mud mask mud were used.

### **Findings?**

The experiment demonstrated that freezing and ultrasonic treatment of lake mud decreased its antioxidant powers, while heating the lake mud as well as the use of different preservatives did not significantly affect the antioxidant powers. The measurements gave the company insight into comparability of lake mud to other products, thus responding to the question on feasibility of producing products from Värška lake mud. This conclusion motivated the company to continue transformation of the raw material to cosmetic products.

**For more information visit [www.baltic-tram.eu](http://www.baltic-tram.eu)**

