BSAP Fund

# Microplastics Removal Project

**Sofi Filtration**

BSAP-2020-103
Report prepared 2022

# Executive summary of the project

BSAP Fund microplastic removal project intended to reduce the amount of microplastics ending up into the Baltic Sea. With the help of BSAP Fund, Sofi Filtration seeked the plastic processing companies in Finland and Sweden and offers a solution to remove the plastic particles from the waste streams. The goal was healthier Baltic Sea as well as economical benefits for the plastic companies as saved raw materials.

Project lasted from the beginning of 2020 until the end of March 2022. At the first half of the project (Jan 1 st 2020 - Aug 31st 2020) overview of the industry and regulations and laws about plastics in Finland and Sweden were summarized. Plastic processing companies were contacted and potential business partners were screened. In the second part of the project the focus was more on the testing and developing solutions for the filtration. Also the work on finding and contacting of potential business partners continued.

**Plastic Industry Market Overview in Finland and Sweden**

In 2018, global plastic production reached 360 million tonnes. In Finland, the amount of plastic used in product manufacturing is annually around 600 000 tonnes. In Sweden, the amount of plastic produced annually is around 900 000 tonnes.

**Environmental Regulations on Waste Water Regarding Plastics**

European Chemical Agency has proposed restrictions on the use of intentionally added microplastics in products. Restrictions are about to be adopted in 2022. Regulations about the plastics in waste water, and especially microplastics, are not as clear. The amount of plastics in the waste water which is discharged to the environment is sometimes defined in the environmental permit of the factory. However, this is often not the case yet.

**Market Demand for Sofi Filter**

Plastic industry can be divided into raw material manufacturing, plastic refining and plastic product manufacturing, and plastic recycling. Each of these processes can generate microplastics to the water flow. Having a Sofi Filter purifying the effluent streams can be highly beneficial. Therefore, companies from each of these sectors were contacted.

Microplastics can be as well generated by companies whose primary operation is not linked with plastics. For example, washing fabrics made of synthetic fibers can generate microplastics to the washing water. Therefore, companies like commercial laundries were as well contacted as part of the project.

Sofi Filtration built a pilot unit regarding to the microplastic project to be able to test the water samples and to offer customers opportunity to test Sofi’s technology at the customers’ site.