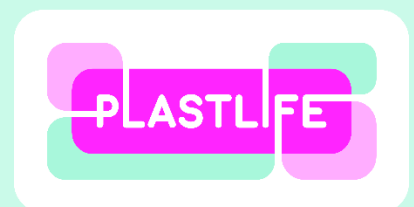
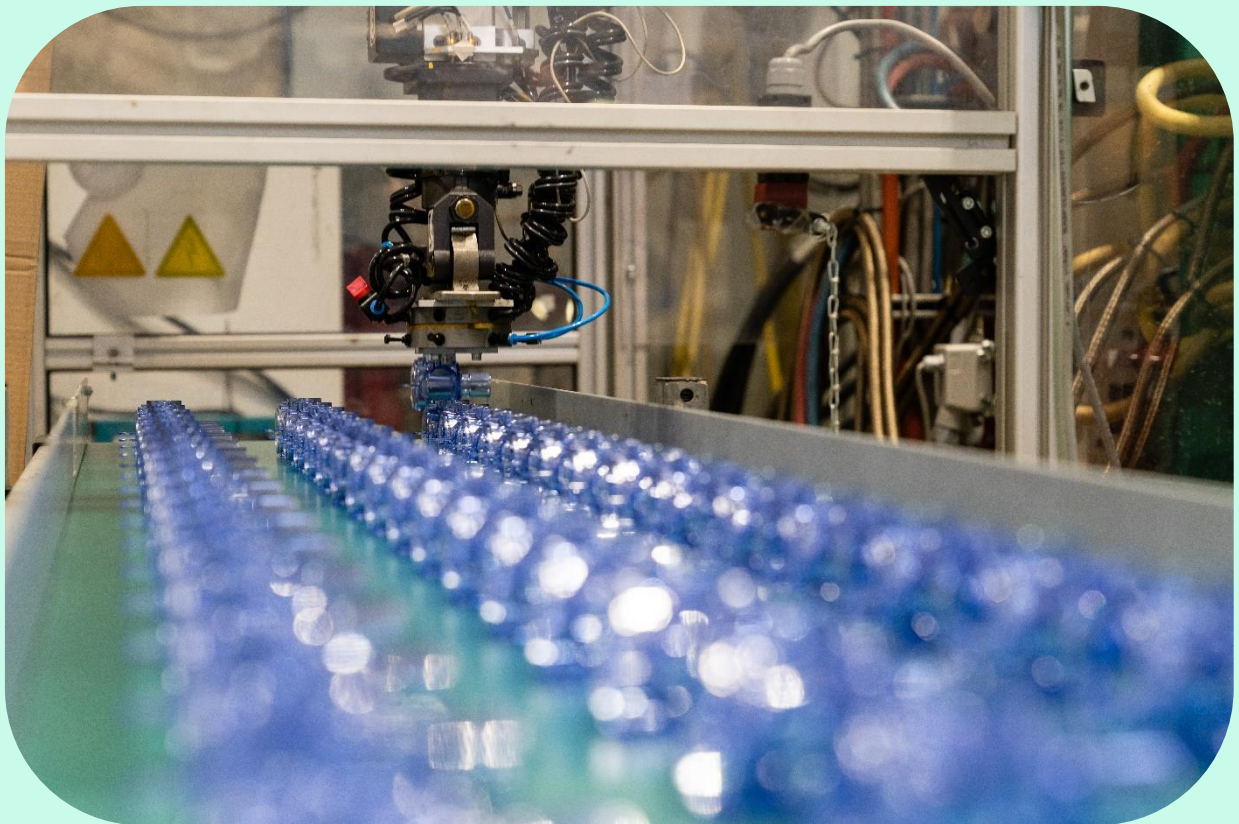


# PlastLIFE D4.7 Plastone Final Report

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## Tiivistelmä

### Plastonen PlastLIFE-projektin loppuraportti

Plastonen projektissa oli tavoitteena kehittää tuotteita, joissa voitaisiin hyödyntää materiaalina teollisuuden sivuvirtoja, käyttäen yhteensä 10 000 kg vuodessa kierrätysraaka-ainetta neitseellisen raaka-aineen sijaan, kokonaisuudessaan 50 000 kg.

Projektissa kehitetty tuote ei saavuttanut ainakaan vielä projektin aikana tavoiteltua menekkiä, minkä vuoksi tavoitteesta jäätin merkittävästi. Projektin aikana saatiin kierrätettyä noin 150 kg sivuvirtoja, jotka olisivat muuten menneet energijätteeksi. Ennusteiden mukaan nyt kehitetyn tuotteen volyymit nousevat noin 1000 kg:aan vuodessa vuodesta 2026 lähtien.

Projektissa selvitettiin myös lähiseudun muiden ruiskuvalajien sivuvirtoja ja saatiin sovittua niiden hyödyntämisestä, mikäli volyymit kasvavat tulevaisuudessa sellaisiksi, että Plastonen oman tuotannon sivuvirrat eivät riitä.

Vaikka projekti tässä hankkeessa on päättynyt, jatkuu työ kuitenkin edelleen. Tavoitteena on kehittää etenkin uusia tuotteita, joita voitaisiin myydä Plastonen sisaryritys Mekalasin kautta.

## Abstract

### **Final Report of Plastone's project**

The aim of Plastone's project was to develop products that could utilise industrial side streams as material, using a total of 10,000 kg of recycled raw material per year instead of virgin raw material, altogether 50,000 kg.

The product developed in the project did not reach the desired sales during the project, at least not yet, which is why the target was significantly missed. During the project, approximately 150 kg of side streams were recycled that would otherwise have gone into energy waste. According to forecasts, the volumes of the product now developed will increase to about 1000 kg per year from 2026 onwards.

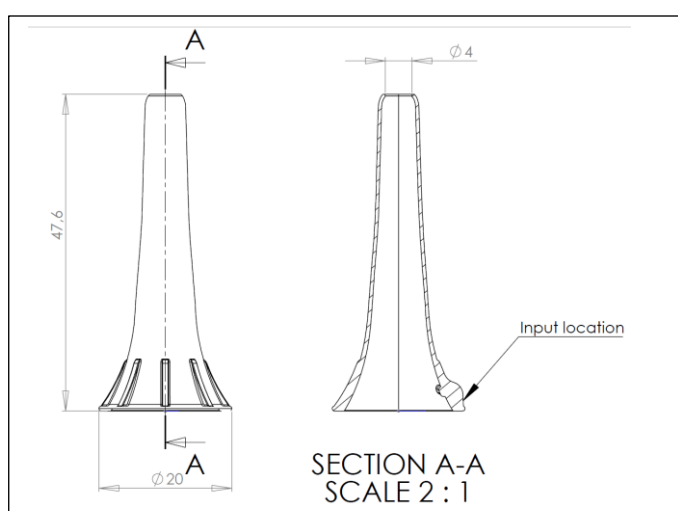
The project also investigated the side streams of other plastics converters in the vicinity and agreed on their utilisation if the volumes grow in the future to such an extent that the side streams of Plastone's own production would not be sufficient.

Although this project has ended, the work still continues. In particular, the aim is to develop new products that could be sold through Mekalasi, another subsidiary of Saxo.

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During the project, an ear funnel suitable for veterinary use was developed for otoscopes. The ear funnel directs the light from the otoscope to the ear canal and the point being examined so that the doctor can examine the condition of the ear canal and eardrum. Due to their size, human ear funnels are not very suitable for animals, and the ear funnels on the market for animals were of poor quality. For this purpose, the project developed an animal ear funnel made of materials from industrial side streams, both in disposable and reusable versions.



Picture #1 Drawing of the product developed.

Unfortunately, the market for the product has not opened up as hoped, only 30,000 ear funnels have been made during the project, and about 150 kg of recycled raw material has been used for this, including test runs. The market for the product is large worldwide, but the problem is, as usual, how to get the product to market. The current distribution channel is apparently not extensive enough and should be developed in the future. The forecast is that in any case, when the product starts to find its way to the market better, sales will increase so that about 500 kg of raw material will be consumed in 2025 and about 1,000 kg in 2026. By further developing the distribution channel, it is possible to multiply the volume especially in 2026 and year after.

The project also investigated the availability of recycled raw material from other companies in the surrounding area. The principle was agreed with two companies, but with the current amounts, side streams from own production are still sufficient. However, as sales grow, we must also be prepared for the fact that recycled raw material will also be sourced from elsewhere.

As a separate project, the manufacture of plastic parts of an auxiliary device that facilitates the handling of crutches from recycled material was also studied. This is a Finnish innovation that would have become a product of Mekalasi, another subsidiary of Saxo. However, based on the market research carried out, it was found that there was not sufficient demand for the product to make it worthwhile to proceed with the project, i.e. it collapsed due to commercial reasons.

During the project, the intention was to acquire a used extruder for granulating recycled plastic. However, the raw materials used in the project were obtained in such purity and homogeneity that they could be recycled using a traditional mill without an extruder. As a result, the project costs fell significantly short of budget.

Although this project has ended, the work still continues. At the moment, we are looking at a kind of a waste container for hospital environment, partly made of recycled raw material. In general, the target is to come up with ideas for new products specifically for distribution through Mekalasi, another subsidiary of Saxo.