

# ACTION PLAN :

## The Doris;

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objective: reduce single use plastic

target: producers and consumers

Synthetic clothes are polluting the Earth, when these textiles are manufactured, washed with your laundry, worn, or dried, they release these tiny microplastics in the water and to the air. These are small pieces of plastic, less than 0.2 inches in length, that occur in the environment because of plastic pollution.

Some of these microplastics mentioned above are made specifically small while others are small fragments that form part of a larger plastic. The 80% of the microplastics that end in the sea come from the clothes. These microfibrils have been found in almost everything we eat and drink: fish, seafood, chicken, tap water, bottled water, salt, beer... they have deeply entered our food chain, of which we are at the top, so the risk for us is even higher. Plastic fibers are now showing up in fish and seafood sold in California and Indonesia for human consumption. No location on Earth is safe from these fibres either; since they end up in the air, they can travel for kilometres before settling down, scientists have proven.

As we commented before, the most pollutant sector in the world is textile. Materials like polyester, nylon, acrylic and other synthetic fibres are all types of plastic and are present in about 60% of clothing made today. Polyester is not biodegradable and mainly proceed from petroleum. Fleece, trousers, blouses, socks and even yoga pants, when washing them generate microplastics that detach from the garment and end up in rivers and seas. Microfibers are too small to be filtered out by waste treatment plants, so they end up in our waterways and oceans, where they wreak chaos on marine animals and the environment. Sea organisms like plankton can easily mistake these tiny plastics for food. In turn, many smaller animals and fish depend on plankton as their main food source. For instance, the great blue whale is also a plankton eater. Anything that feeds on the plankton will get a dose of plastic pollution, potentially passing microfibrils up the food chain.

As a result, there are some ways to prevent this problem. Like a remarkably simple but important one: when cleaning out the dryer, place lint in the trash instead of washing it down

the drain. Because if not it finishes ending up in the seas. Another solution is to stop the production of fabrics with synthetic materials, which is nearly impossible. But if we want to avoid the detachment of microplastics we need to avoid plastic fibers. And you should only buy clothes made from natural fabrics such as cotton, linen, and wool; in any case, natural fibers will eventually break down in the environment. But these solutions are not as effective, and people won't easily stop using these types of clothes since they have become a comfortable, daily use. So, the only option we can think of is that they stop producing clothes made with synthetic materials. This would take a few years resulting from it is implanted in the entire world.

Therefore, we provide a unique offer; our approach is to create a nanofiltration net system that will take in all the microplastics. And you may ask, what is nanofiltration? Well, it is a membrane filtration-based method that uses nanometre sized pores through which particles smaller than 10 nanometres pass through the membrane, so the microplastic fibers won't pass through and will get trapped in. Our device can be implanted directly in the drying or washing machine to trap the microplastics and these do not go down the drain. But we also offer the opportunity for people to buy the nanofiltration separately if they would like to. Which is a net based on nanofiltration. We know that our product can solve the problem of microplastics or at least the one that come from the textile sector. How will we get we get the nanofiltration system in the drying machine?

Well very easy, we could get in contact with a washing and drying machine company that would be able to implant this system in their machines. People will not want to directly buy a new machine because it requires more investment. That is why we have the individual net. But also, if they give back their old dryer the company can give them a 10% discount and they can apply it directly into their washing or drying machine. The nanofiltration system is quite easy to use and could save a lot of sea species such as fishes, plankton, or any other animal that feeds from it.

We only want to encourage you to contribute with your planet and try to do as much as possible to not harm the earth and the animals that live in it. If we want to save the world from pollution, we all must contribute with our grain of sand and work together to achieve that.

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