

WORLD ENVIRONMENT DAY SYMPOSIUM ORGANISED BY THE GREEN INSTITUTE

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CASE STUDY SESSION

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ENABLING MICRO RECYCLING THAT BENEFITS COMMUNITIES AND CREATES ENTREPRENEURS BY OLIVER NODDS

Adenike: Hello Oliver. How you doing?

Oliver: Good thanks Adenike, happy world environment day.

Adenike: Happy world environment day. So we've been talking to a lot of Academia, so we had a lot of moderators, moderating the session. However, this is more of freestyle of freelancing. You just talk about what you do in the industry. So, not much of moderation or just to showcase what your organization is doing with ocean plastic technology.

Oliver: So can I share my other citation.

Adenike: If you have any slides that you like to share, you just want to talk about what you do as an organization.

Oliver: We have a slideshow for you and a small video clip hopefully that'll be of interest to people.

Adenike: Perfect.

Oliver: Just a quick introduction. So I'm one of the founders of ocean plastic technologies where a recycling in a pod. We actually work with awesome people like Mariam who was before me where we try and help drive as much as the value proposition around plastic recycling back down the value chain into communities and to allow those communities to obviously make as much money out of recycling plastic as possible. And to do that, when you develop various Technologies, obviously, the problem with recycling is, it's becoming bulky as becoming cumbersome. And what we've tried to do with the tech that we've developed is to actually focus on how can we recycle the plastic and solve the solution locally as well as up cycle it to a higher value and then to create a better logistical solution to actually move that plastic to a place where it can then be properly recycled as part of a circular economy. I'll show you a quick shot here of one of our teams working so we work in Rural and period and communities. We do a lot of work around engaging communities around plastic waste, encouraging the communities around collecting that plastic and monetizing that plastic and then our job really is two sides of the coin. One we come as an enabler with the technology to help these really well organized and motivated communities recycle their plastic more efficiently and then we come at the other end of the equation, where we've been very fortunate to actually have some nice, uptake agreements that allow us to monetize that plastic at the highest possible value possible to push back down the value chain to the communities, and ladies that we work with.

Oliver: So hopefully that gives you a quick overview. I thought a video would be better than another words and really that hopefully will show you how we try and fit into the circular plastic economy. In terms of we use our micro recycling pods to benefit local communities to allow them to up cycle the Plastics locally and to sell them for a higher value. One key to that is we create jobs, we try and use a very strong data-driven track and trace process that we've developed alongside our processing plants and we've also basically focused on power consumption and power usage where we now have three different versions of our micro cycling pods. And those pods can be used to suit the level of stock feed available. So, obviously in rural communities where you don't have a lot of plastics, you have a smaller unit versus we're in urban locations, we have pods that can process up to a ton plus of material a day and also we work on various types of power. So we can work off grid to using solar and single-phase power supplies or we can use three phase and generators really to try and make it as fit for purpose as possible and to try and create a truly circular plastic economy. Just to give you a quick overview of how we work. So obviously you've seen a lot of these diagrams today. So I won't mention too much but basically we place the pods in community so that the communities are and then able to able to process the

plastic locally and basically then peanut should be identify and sell it back to the market at a more competitive price point. He has a bit of an impact overview generally, depending doesn't really matter if it's a gen 1, 2, or 3 of our pods, we create between one and six direct jobs, the pods are actually not owned and operated by ourselves. They owned and operated in conjunction with other networks that we would work with people. For example, like my previous speaker, Mariam from Green Hill, she would look at placing these in communities. The communities would then own and operate them, and have the benefit of the profit from them. Our job is to enable the technology, and then obviously for the object agreement. But hopefully this gives you an idea of potentially the impact one of our pods has in a circular plastic environment.

In terms of some key features, obviously, we're on gen 3 of our plants. The gen 1 allows us to process, 25 to 50kgs an hour of material, gen 2 is 50 to 75kgs in our engine, 3 allows us to process up to 200 kilos an hours. It's quite an efficient recycling; they all fit into 20 foot containers. So they've got a very low footprint and they all can run on various power supply options. We try and process all types of Plastic. So the system is self-purging so you can run pitch and then you can move to another type of plastic like a polypropylene or HD. It's also an automated process. Now where we've tried to make the operator processes simple and it seems possible. Where literally adding bottles, one side, and you're getting flanked and granulated pit to the other side that's clean. And obviously, again what's quite key to that is we need bridge a lot of IOT4 and we have remote management software where we can actually dial in and see what's happening with the plants, as well as see what the stock feed material levels are like and monitor our track and trace technology. This is just a quick complicated slide with overview but we've got two technologies we've developed on the back of our pods. So one is the track and trace, we track and trace by location processed until we get quite a nice rich data harvest of what actually comes into the pods and then what actually goes out of the pods back into the manufacturing supply chain. And also we have a QR code in system that we use to actually track and trace materials that are being made into new products. So that companies and individuals and consumers can actually see where that material is gone and how it's been recycled, we think that's quite important in terms of Partnerships and we also think it's very important in terms of being a accountable. In sort of summation, our key Focus really and the whole objectives of our micro cycling product is really about development, social upliftment and supply and development we try to create new wealth within the recycling community by allowing community to up cycle the product is much as possible and obviously create as much wealth back down the value chain. So for example, in South African terms, we instead of people buying it for 253 randy kilo actually gets processed through our pods. And we buy that material from our pods for anything from 910 Randy kilo. So suddenly you have a lot more money going back into communities and that helps fix things. And then just to give you an idea overview, I've explained the three versions we have obviously, and then just some of our key goals that we're trying to achieve in terms of sustainability with pro gender, equality, we very much focused on women and youth. Obviously, very, very committed to the circular plastic economics of it all. And what we're finding now through impact, that we're seeing in the field is, it's actually quite nice to see that we're starting to affect biodiversity, water quality levels within river systems around our pods and that type of thing.

Obviously, in terms of Self-sustaining business model, It's designed to be environmentally sustainable as well as economically sustainable and hopefully through sharing platforms such as this will share our messaging and hopefully engage further with people around how we can continue the conversation. Thank you for the time and thanks Adenike.

Adenike: Thank you so much. Wonderful presentation. We have a question from the audience. The question is let me put it up "plastic recycling seems expensive because of plants, is there a way to go about it? Is there way to reduce the cost?"

Oliver: Yes. So obviously, the equipment is expensive, there's no denying that. I'm afraid the way we've dealt with this today. We treat ourselves as plastic Farms. So when we talked to the big FMCG companies, we say to them, what if you invest in a plastic Farm, you can have the uptake agreement of the plastic recycled from that farm. So in other words, they have first right of refusal to buy that material or a lot of the big companies that were fortunate enough to deal with are trying to comply with the extended producer responsibility act in different countries and the focus and social pressure on that is increasing. And that's helping. So that becomes a very good way to fund the plants. We've also just finished our first three year cycle with two plants here, which have been commercially financed through banks where they have actually successfully ran the business has its separate entities, service the loan to purchase the equipment and paid it off and are now in a position to continue growing the business.

Adenike: Thank you so much, have a wonderful session looking forward to collaborating with you.

Oliver: Great. Thanks so much Adenike, appreciate the opportunity.