

Atle Idland: Turning Sand into Fertile Soil

RAMA CHAKAKI: As you are listening to this, over 20% of the earth's fertile land has already degraded. Twelve million hectares of fertile land perish to desertification annually according to the United Nations. Deserts are spreading so fast that global agriculture may only have 60 harvests left.

ATLE IDLAND: And if you see today with the, both the food security water scarcity and the, the speed of the disaffiliation, it's crazy. Twelve billion hectares of land is degraded every year.

And that's twice the size of the UAE. Every year around the world. And now there are more than 110 countries affected by droughts and by deserts growing.

RAMA CHAKAKI: Our guest on today's episode is Atle Idland, General Manager of Desert Control, a start-up that came up with a solution that could revolutionise the global war against desertification. Desert Control, whose regional headquarters is in the UAE, turns desert sand into fertile soil in less than seven hours — a process that until now had taken somewhere between seven to 12 years.

RAMA CHAKAKI: I'm Rama Chakaki, and you're listening to Innovate with Purpose, the official podcast of Expo Live, an innovation programme by Expo 2020 Dubai.

[INTRO STING]

RAMA CHAKAKI: Before we jump in, can you just briefly introduce yourself and your work?

ATLE IDLAND: My name is Atle, Atle Idland. I'm from Norway and Desert Control is also a Norway founded company.

We address three major topics on the global arena.

One is the degradation of our fertile soils. The second is water scarcity and the third is desertification; the growing of the deserts in the world.

RAMA CHAKAKI: When we spoke with Atle, he told us about how his company developed the revolutionary treatment Liquid NanoClay, or LNC, an agri-technology that binds a mineral-rich solution to sand grains.

ATLE IDLAND: This goes back, honestly, 15 years ago, when our founder and inventor — who is a oil and gas engineer in Norway — he was on a field trip in Egypt within the agricultural sector. And he saw at that time that they were digging down a lumps of clay into the sandy soils, because clay-rich soils have always been a beneficial, setting for agriculture.

But he saw that this was labor-intensive. They used almost 100 kilos per square meter of clay to get the sandy soils fertile. So he found out that going back to his drawing board and inspired by the Norwegian oil and gas industry — he made a liquid solution. So now it's called Liquid Natural Clay.

So we just spray this or inject this into the desert sands, and after seven hours, it makes the soil fertile.

RAMA CHAKAKI: That is very impressive. Could you maybe tell us a little bit more about the impact of LNC, and also some of the tangible results you've seen?

ATLE IDLAND: The main benefits of LNC is water savings. So we see now, after all the tests we have done, and also here in the UAE, we have between 30 and 50% less irrigation water needed for agriculture and for landscaping, after you have treated the sandy soil with LNC, versus business, as usual . And 30 to 50%, that's quite a lot.

So the main benefits, water savings, and even higher crop yields.

RAMA CHAKAKI: So here's this work you're very passionate about and you want to build it better. How was it that you first came across Expo Live, and how has the grant helped your start-up?

ATLE IDLAND: I came to the UAE late in 2017. And I found out that the Expo and Expo Live had a program. So this was really our first source of funding or grant, which gave me, I would say, a big motivation, for going forward.

I was the only one here at that time, and with the support and, the recognition from expo live, in the early 2018 was really a boost for me.

Then in 2019, we raised back in Norway, we raised about 4 million US dollars.

That was kind of like through friends and families and, friends or friends. We didn't go public. But in 2021, this year, we have also gone public on a wage and stock exchange, the euronext growth. And we raised about 20 million pounds. I would say the funding has taken its time, but we have not run out in the market too early. We needed to be ready

Earlier this year we were three people in the UAE. Now we are 23 and before the end of the year, we will be 50 in the UAE. And the UAE is kind of the hub for the GCC region.

We're also moving into the west coast of the USA in the fourth quarter even next month. So those are the two main markets that we are doing right now, because we need to build our production capacity. We need to build our delivery capacity and that's in the process of what we're doing.

And at the same time, we also used parts of the grant from expo live to do external validations here in the UAE with another global innovator called ICBA, the International Center for Biosaline Agriculture. So they are kind of our, our extended R&D arm here in the UAE, which has externally validated all the results for us.

RAMA CHAKAKI: Which brings us to your path ahead. Your mission statement is to make the earth green again. How are you going about making that happen, especially in parts of the world that suffer from droughts due to climate change?

ATLE IDLAND: We are also working closely with the UN. We have been invited to take part in the great green wall project. That's a UN-funded or globally funded project that's going from east to west of Northern Africa, Sahara region. They're going to green that whole region.

So the great green wall project is something that we hope in maybe a year or a year and a half that we will be able to contribute to as well.

That's our mission. And that says a lot. And the founder of this nation, Sheikh Zayed, said, "Give me agriculture and I'll give you civilization.". So I think these are things that we, we are trying to, to live by.

But I would say the awareness now of climate change, the awareness now of the water scarcity, and that water is the new oil, and the awareness of food security. If you look at the UAE, they are importing almost 90% of the food that they consume. That's not sustainable. Yeah. So, we are a part of this and we think we will have the right impact and people are starting to recognize this now.

And if you look at, I would say local or global practices, that'd be in agriculture or in landscaping, There's a lot to do. And that there's a lot of water wasted. There's a lot of I would say fertilizers wasted. So there there's a big potential to, to be able to come to a more sustainable practice.

RAMA CHAKAKI: There's potential and also certainly a need!

And finally Atle, what does a better world look like for you and the team at Desert Control?

ATLE IDLAND: First of all, it would be green. It would be sustainable. It would be a happier place. Like the Good Place Pavilion, like where we're sitting in here now. We can do our part as just a control, but I think the whole world, all people can make the change. We will, we will do, I have a good gut feeling.

ATLE IDLAND: Well, we're all rooting for you to make the world greener again. Thank you Atle for sharing your story with us, this has been fantastic.

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