An Equity Note

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What's Inside:

- New idea: Desert Control (DSRT)
- **Description:** DSRT uses LNC technology to turn deserts into gardens
- **Why It Matters:** Deforestation, desertification, and global food supply strains
- **What's The Prize:** $400B TAM

Companies Mentioned:

- Desert Control (DSRT)

MO Equity Note: Desert Control (DSRT) - Making Earth Green Again

By 2100, there will be an estimated 11 billion people on Earth. This population will require *60-70%* more food than what's currently produced. By 2050, base food production will require *50%* more water than what's used today. By 2025, 1.8 *billion* people will experience water scarcity, and 2/3rds of the global population will live in "water-stressed" regions.

1.3B people live on degraded farming soil. 12 million additional hectares become barren annually. Finally, we're running out of farmable land at the *precise* moment we need to increase our food supply. At our current degradation rate, we'd only have 60 farmable harvests left.

This all reads as pretty dour, and it is. Fortunately, there are a number of innovative companies toiling away out of the limelight to help solve this developing crisis.

A small Norwegian company named **Desert Control (DSRT)** is one of them. Their product could help save our planet from desertification, deforestation, and water scarcity.

Why DSRT Matters: DSRT is one of the most incredible technologies tackling this problem. The company helps agricultural lands use less water by turning deserts into rich fertile spaces to grow food.

Size of The Prize: DSRT solves three problems (desertification, soil degradation, and water scarcity) at once. The United Nations estimates that the above environmental issues **cost us ~$490B annually worldwide.**

Sidenote: Check out the end of the report where I share my notes from my call with DSRT's CEO Ole-Kristian Sivertsen.

Anyways, by 2025, the company expects to generate nearly $90M in revenue with 50-60% gross margins and 38-55% EBITDA margins.

Why The Opportunity Exists: DSRT is a recent IPO on the Euronext Oslo Stock Exchange and garners little attention from

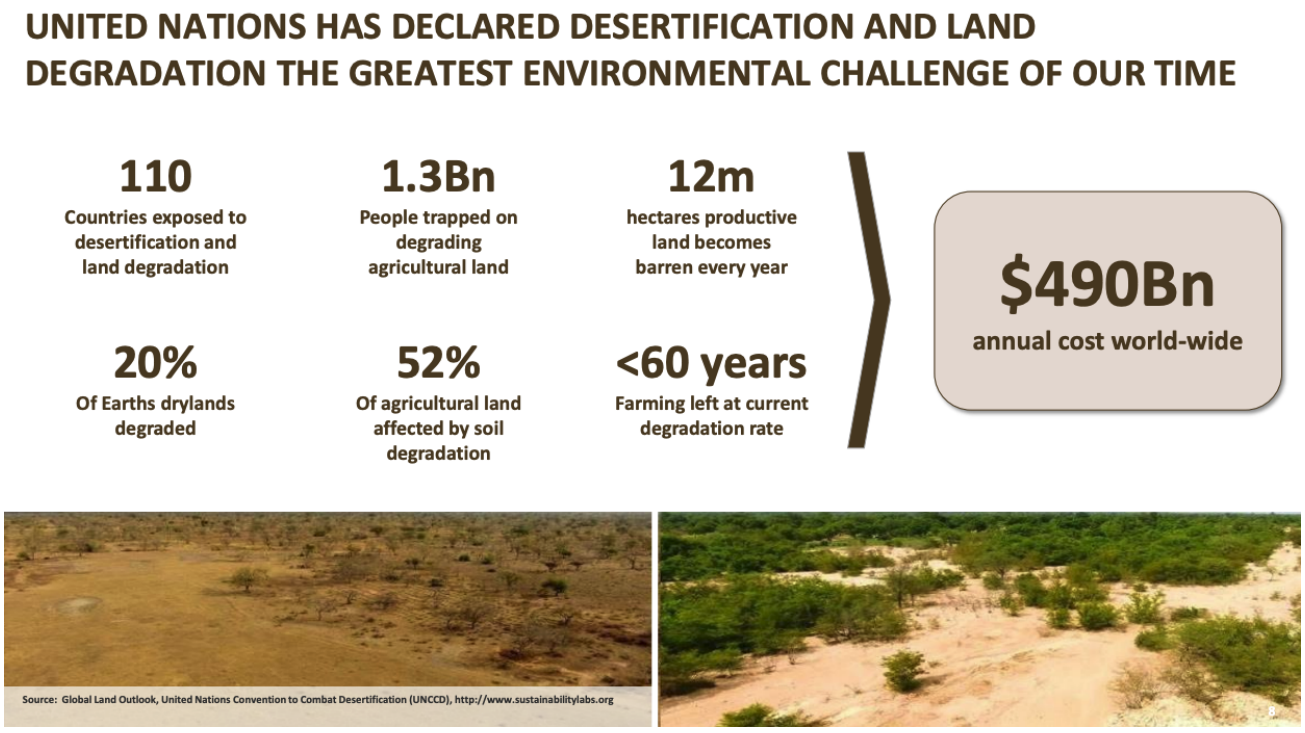
US-based investors. Additionally, insiders, local Norwegian hedge/pension funds, and institutions own over 75% of the company's shares. That leaves ~25% free float available for other investors.

DSRT is at the inflection point between R&D validation and commercialization. This means the company won't screen well (or at all) because it has little-to-no audited revenues, only operating losses.

Let's explore this under-the-radar business.

The Three-Pronged Problem: Deforestation, Desertification and Water Scarcity

DSRT solves three of Earth's most pressing challenges. We're running out of water, farmland, and food.



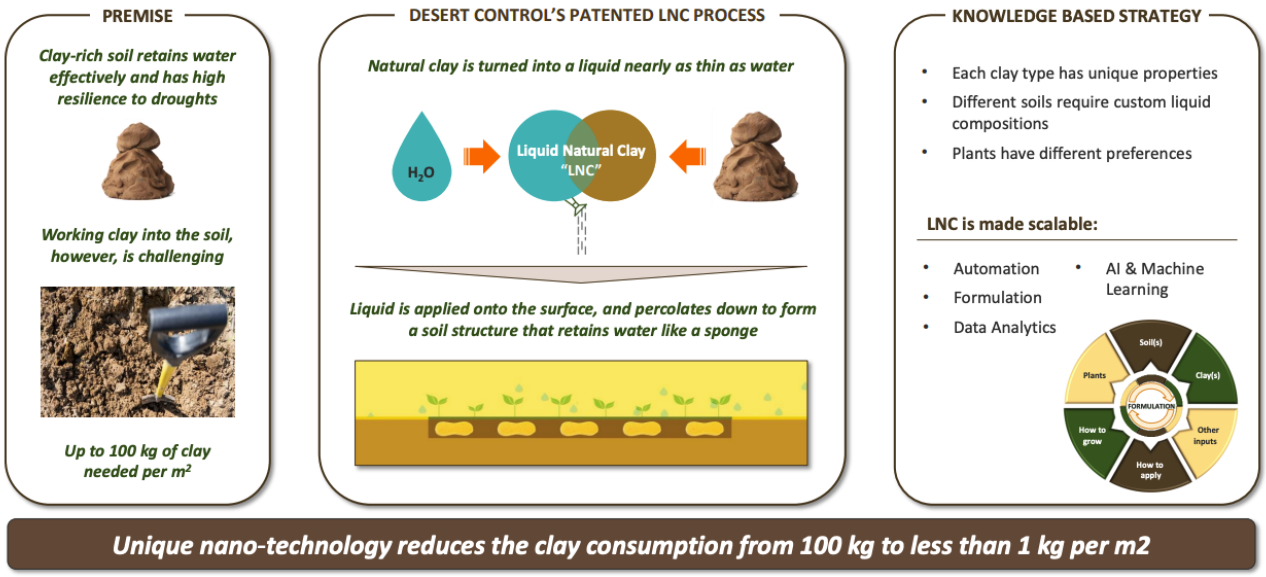
But that's only *part* of the problem. We use 70% of the world's freshwater for agriculture. Worse yet, barren/less-fertile land requires *more water* to grow the same number of crops.

The result is a vicious feedback loop of **deteriorating farmlands, deteriorating water supply, and a growing population to feed.**

DSRT plans to stop the cycle. Here's how.

How DSRT Solves The Three-Pronged Problem

DSRT solves the above issues by combining clay, water, and proprietary nanoparticles to create a sprayable liquid that turns deserts into farmlands. If you're nerdy like me, you'll enjoy reading the patent application here. There's also a great Ted Talk with the company's founder, which you can watch here.



Why clay? Clay offers two advantages to growing plants/trees in desert areas. It retains water effectively and is highly drought resistant.

Yet as a standalone entity, clay is challenging to integrate into existing soil structures. Without a liquid to "cut" the clay, a farmer would need 100kg of the substance per square meter.

It's a time and labor-intensive process that involves tills, tractors, and mechanical intervention. A farmer would have to till her entire field to receive the actual benefits of clay.

Enter DSRT's nanotechnology.

Through DSRT's patented formula, the company creates a liquid of clay, water, and other substances. The liquid is almost as thin as water and can be applied within a farmer's existing irrigation system. Here's the *real* magic. Once sprayed on the surface, DSRT's Liquid Nano Clay (LNC) seeps deep into the barren land, creating a compact, drought-resistant, and highly water-absorbent soil.

DSRT's LNC method reduces the amount of clay needed from 100kg per square meter to <1 kilogram. Additionally, it dramatically reduces the time required to get the barren land ready for planting, from 7 years to just 7 hours.

The result is something out of a science fiction movie.

DSRT's product is simple to use without heavy mechanical intervention. **Every competing product requires tilling and digging the soil to mix ingredients.**

The company's products turn deserts into oasis-like landscapes. Check out the photo below from one of DSRT's pilot programs.

Here are the important stats behind the tech:

- 20-50% water and fertilizer savings
- 17-62% increase in crop yields
- Improved soil, biodiversity, and carbon uptake

Not only does LNC reduce water consumption needs and increase crop yields, **but it also enhances the earth itself.**

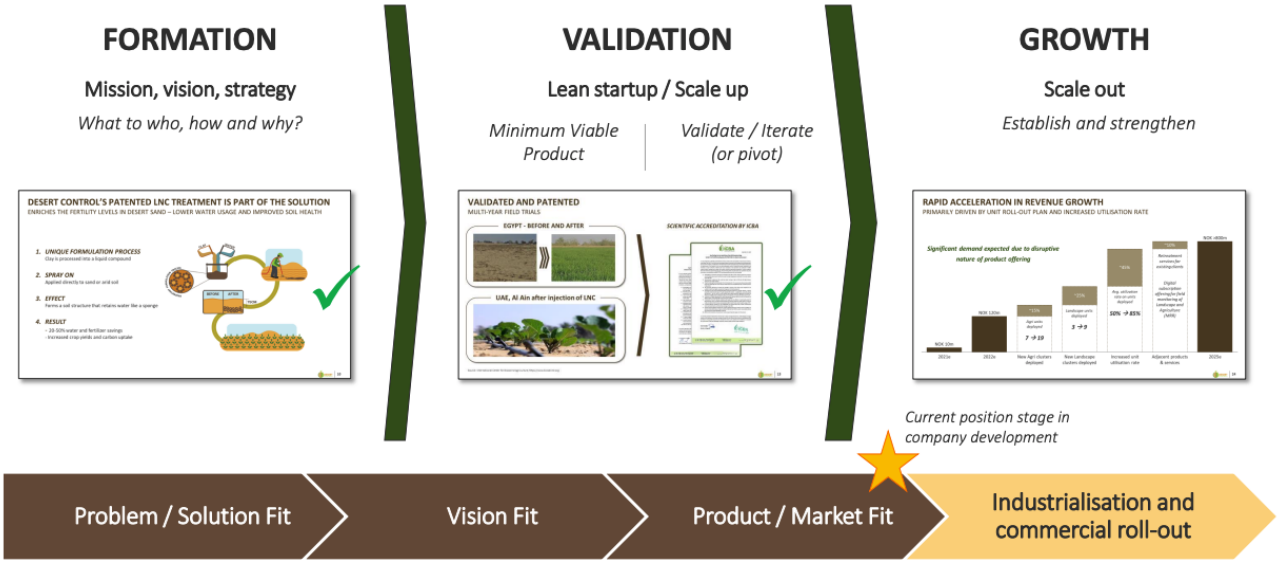
The technology is impressive. But we've known about it since 2016. So why now?

Why Now: Investing At Inflection

DSRT's LNC technology isn't new. So why should investors care now? A few reasons. First, technology supporters couldn't invest until *this* April when DSRT IPO'd on the Euronext Growth Exchange.

Second, the company is at an inflection point in its lifecycle from R&D to commercialization. Founder Ole Morten Olesen spent EUR 17M of his own money (via savings and pension) and *12 years* developing the technology and perfecting the LNC formula.

DSRT sought certifications and pilot field tests to verify the product's efficacy. All without a public offering (something reassuring about that).



That brings us to today, where the company is ready to deploy its technology on a large commercial scale. The company mentioned that it received over 300 inquiries about its LNC product, even one LOI from the United Nations over the past year.

Then there's the Great Green Wall Initiative. Led by the UN's *Convention to Combat Desertification,* the Great Green Wall aims to restore 100 million ha of currently degraded land, sequester 250 million tons of carbon and create 10 million green jobs.

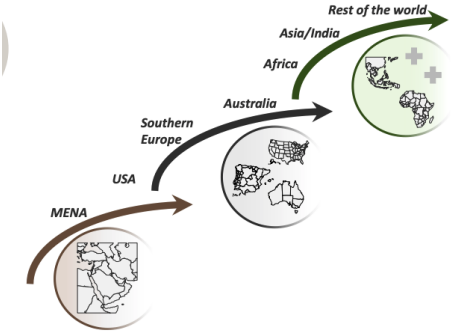
To review, DSRT spent the last twelve years perfecting and protecting its LNC formula. It then secured pilot programs to confirm efficacy. Now it's ready to deploy at scale ahead of major environmental/ESG tailwinds at their back.

DSRT's Unit Economics & Addressable Market

There are three ways to think about DSRT's addressable market. But before we do that, it's important to note that we're estimating TAM in hectares (1 hectare = 2.47 acres).

First, there are global impact programs (like the UN's Great Green Wall, etc.). That's ~500M hectares.

Then there's property and land management, which adds another 1.1B hectares. Finally, DSRT sees the Agriculture industry as an additional 4.4B hectares of greenfield expansion.



The company will attack these markets by first going through the MENA regions. You can see the projected path on the right.

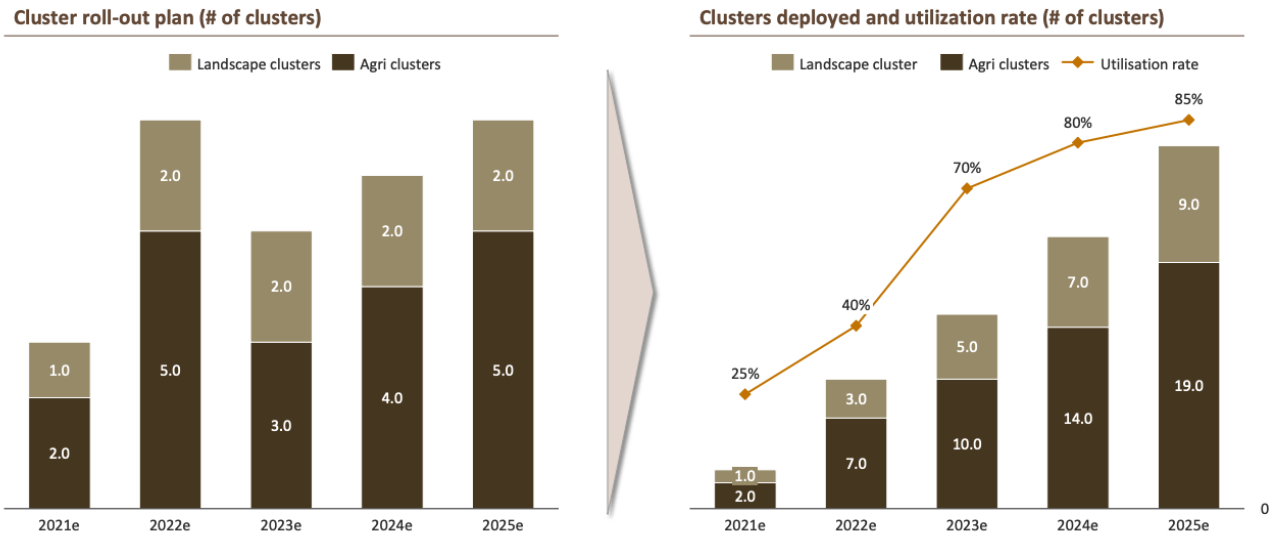
DSRT sees two primary sources of future revenue: **Agriculture** and **Landscape.** Each source possesses unique unit economics, which you can see below.

The company's revenue is a function of two levers: **# of clusters deployed** and **utilization rates**.

DSRT expects to generate ~50% gross margins in agriculture and 60% in landscape at full utilization. After accounting for customer support, tech service (general maintenance CAPEX), you're left with ~38-55% EBITDA margins across clusters.

From here, we can piece together revenue projections using cluster numbers and utilization rates (see below).

CLUSTER ROLL-OUT PLAN AND ESTIMATED UTILISATION RATE



DSRT expects to generate ~ NOK 10M in revenue by the end of 2021 with 3 clusters and a 25% utilization rate. By 2022, the company sees ~ NOK 120M in revenue with 10 clusters deployed (7 landscape and 3 agriculture) at a 40% utilization rate.

This makes it easy to track the company's progress because there are only two questions to ask:

- How many clusters have they deployed?
- What's the utilization rate across all clusters?

Over time, more clusters at higher utilization rates lead to higher gross and EBITDA margins.

In fact, the company sees ~ NOK 800M in 2025 revenues with 29 clusters and an 85% utilization rate. That's good for NOK 280M in EBITDA, assuming 35% run-rate EBITDA margins.

We addressed the core unit economics of DSRT's business. But the company has one other shot on goal up their sleeve.

Shot On Goal: Digital Precision Farming (SaaS Data Product)

DSRT has plans to add a data-driven precision farming management tool on top of its cluster LNC product base. This product will ensure optimal LNC dosages and adjust with the soil as seasons and cycles change.

Also, DSRT's software will give farmers precise control over their crops, down to the sub-square meter level. Eventually, the software would learn enough about the farm to decide how much to water the soil, when to water the soil, and what crops work best under specific conditions.

Concluding Thoughts

DSRT technology is something out of a sci-fi film. You can read about DSRT's case studies here, but I'll leave you with this anecdote (emphasis mine):

> *"Results show that the **average weight of the heaviest piece** of cauliflower, okra, sweet peppers and carrots, harvested from the area **treated with LNC**, was **higher by 109 %, 18 %, 64 %, and 17 %**, respectively."*

DSRT has legitimate technology backed by twelve years of founder-funded research and development. The company tested its product through myriad pilot programs, and now it's ready for commercialization.

You can buy the business today for ~$137M. The company has zero debt on the balance sheet, NOK 114M in cash, and a long runway for organic growth to prove itself. At its current estimated burn rate (NOK 18M annually), DSRT has ~6 years of cash before it would need to raise additional funds.

Finally, management appears well-aligned with shareholders. Ole left a high-paying job as senior VP at Global Eagle to become CEO of DSRT. He *believes* in the company, the product, and the global opportunity.

If you want more information you can watch DSRT's IPO announcement video here.

Check out the next page for my notes from my call with CEO Ole-Kristian Sivertsen.

Extra: Notes From Phone Call w/ CEO Ole-Kristian Sivertsen

On first joining the company …

> *"When I first joined the company I thought it was too good to be true"*

On patent protection and expiration …

> *"We have such an R&D investment with PhDs for our LNC technology."*

"If you try to break down the clay with oxygen bubbles, you will be in violation of our patent."

On commanding a premium price for its LNC product …

"The moment competition kicks in, you'll pay a premium price because you're paying a higher yield."

On potential competition …

"*The one technology that is gaining momentum is biochar."*

- Biochar you need to remove the surface vegetation
- You're putting a carbon into the soil (carbon credits)
- But it's not as easy -- you kill the soil. It will have a lot of carbon in the soil and you risk exposing that carbon into the oxygen
- Biochar is much more expensive than LNC
- Together w/ biochar, you can liquify it with LNC so they would bind together. By the force of gravity, you could pull the biochar into the ground via the clay

On per-cluster unit economics …

What defines a cluster:

- Production units (that house the LNC product)
- 20ft field containers
- 4 units = 60 cubic meters of LNC per hour

Difference b/w agriculture and landscape **IS NOT** in the LNC units themselves

- Capex is different for landscaping / agriculture is landscaping is much more advanced application techniques
- Developed robots for precision injection in hilly landscapes (golf courses)
- Shoot precise holes into the land

On digital farming SaaS products …

Three categories of basic services that can generate MRR or ARR:

- **Beginning**: small revenues from stage 1 -- almost as a freemium model to get customers hooked
  - Provide basic monitoring, not updated as frequently
- **Next Level**: Active alerts -- irrigated too much, applied bad things to the land
- **Final Level:** Provide integration services -- from monitor to alert to control.

"We already know how much water you'll need for different plants and services."

"As any SaaS business, it will start with a very small amount

This potentially could lead to "hey we know how much water your plants needs. We know how much nutrients you should be applying."

That could open a channel where you tap into the value chain of fertilizer companies

Why would they want to do that? If they spent $1M on LNC, we could guarantee that if they let us know what fertilizers they use.

Automate the LNC clusters as easy to make the coffee machine

What that will allow DSRT to do is go to an indirect model (franchisee) like a soil health kitchen (like a fire truck)

Then the question is, is that worth giving up 5-10% margin?"

On potential future risks …

- 40 Billion Trees with Saudis
- Buy the company in a hostile takeover bid
- Not balance sheet risk
- Are we able to scale this across the world or does it become just a middle-eastern/African niche company
- Are we able to penetrate the US west coast market?
- Are we able to get this into Iberia/Portugal/Spain?

On management's conservative estimates …

"Everything is conservative. All revenue and earnings estimate is around two markets: UAE and careful market entry into US market."

"Not capturing any potential in other markets (a few percent penetration)."

On skin in the game …

- Ole has invested all of his savings "down to his bones" into this company
- No signal of the insiders to sell
- Co-founder is 70 years old and says he doesn't want to sell anything. And if he does it will be to cover his taxes