CUBICFARM
System Corp.

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CubicFarm Systems Corp. is developing indoor modular technologies that empower farmers to grow fresh produce and fresh livestock feed at a commercial scale, in any climate, all year round.

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Their mission is to create indoor farming technologies to feed a changing world, help farmers to keep growing, and empower farmers to localize plant, food, and livestock feed production at a commercial scale while also protecting people, resources, and the economy.

CubicFarm's Feature

1. 95% less water
2. 80% less waste
3. 52X land efficient
4. Power efficient
5. Indoor growing
6. Zero Pest

7. Modular unit
8. Controlled environment
9. High quality
10. Local food ecosystem
11. Consulting service
12. Empower local chain farming


TESLA


Microsoft


BOWERY


AeroFarms
AeroFarms
AeroFarms
AeroFarms
AeroFarms

Porter’s forces

Strong

Threat of substitute
customers would rather switch to an alternative
(Traditional farming)

Weak

Bargaining power
customers do not have much power
(Few manufacturers)

Weak

The threat of new entrants
It is expensive for a new business to set up

Medium

Supplier power
Suppliers’ power is medium

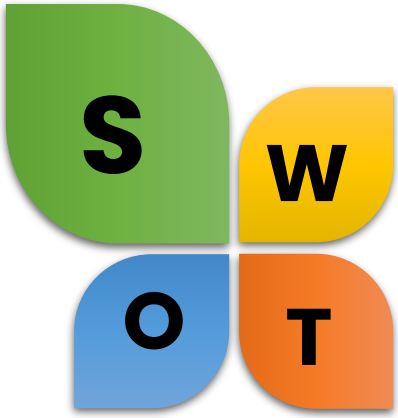
Strong

Competitive rivalry
There are strong companies to compete
(For example Microsoft green project)

High

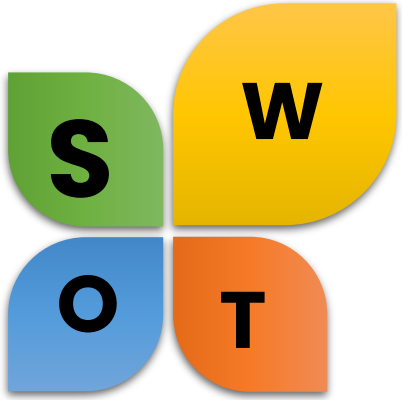
Force of time
I think time is important now.

Strength



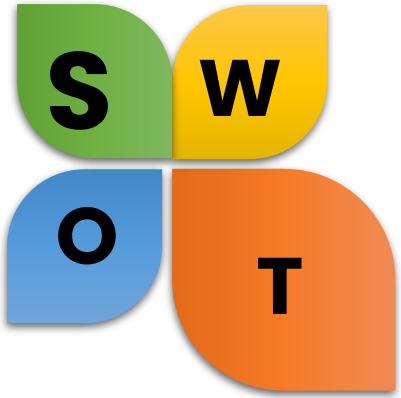
1. High-quality and high-performance indoor agriculture
2. Modular, consistent food ecosystems
3. Portable and adjustable
4. Potentially low-cost and high-profit design
5. A local platform for resources, customers, and products
6. Good customer service

Weaknesses



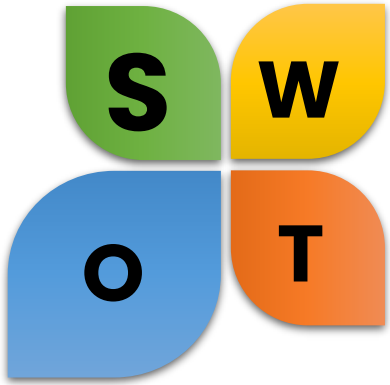
1. Expensive for end-user
2. Low variety in products
3. They are small compared to others (Microsoft)
4. New technology, but not well-known
5. Late profitability
6. Based on the local and limited market

Threats



1. Limited products
2. Limited market
3. Compatible with future treats which are not established by the public, yet
4. Looks complex for farmers and farmer needs consultant
5. Needs consultant

Opportunities



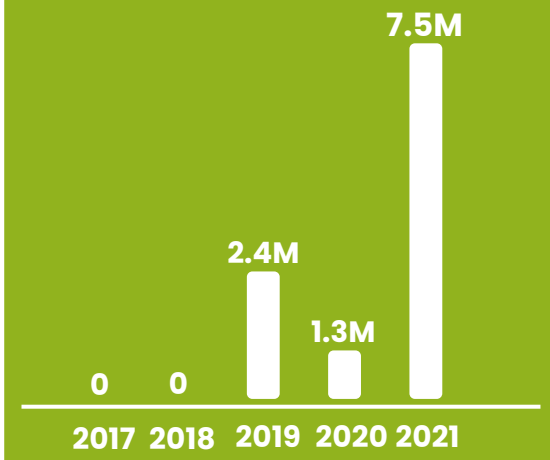
1. Compatible with the future climate-changing treats
2. Sustainable food resource for a local economy
3. Compatible to attach to other self-sustainable technologies
4. Good for small growing space
5. Potentially great candidate for dry land markets (**%42** of the earth for now and **%90** by 2050 in the luckiest scenario)

Financial Performance

	Revenue	Net Income	Earning per share
2019	5.35 M	-7.6 M	-0.09
2021	5.17 M	-10.1 M	-0.09
2020	5.27 M	-29.35 M	-0.16

Paying a lot for salary and development

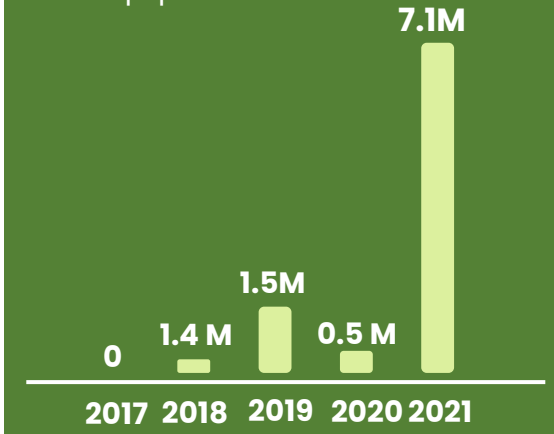
R&D



They are paying a lot for research and development and consultant.

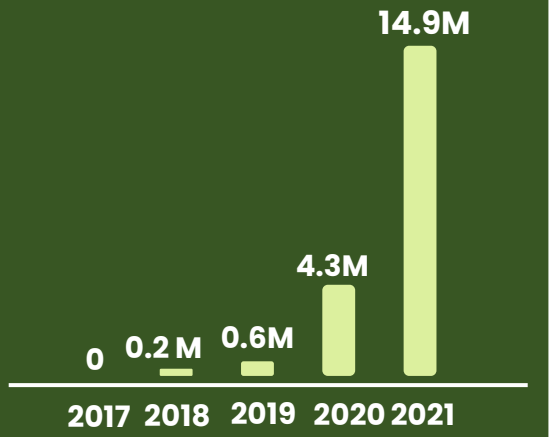
PPE

Property, Plant & equipment



The purchases of PPE are a signal that management has faith in the long-term outlook and profitability of its company

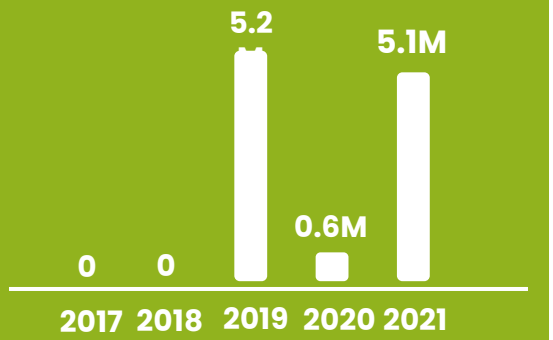
Salary



The company is in development progress., they increased their employees, even in the middle of a COVID pandemic.

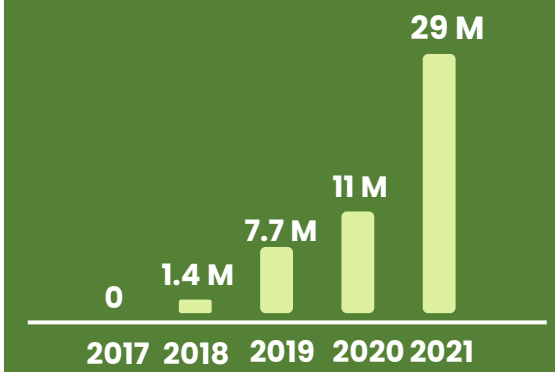
Low sales and Low Profitability

Sale



Sales dropped significantly during the COVID pandemic.

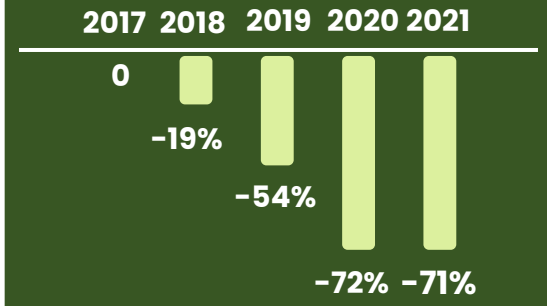
Cost



The company developed its R&D and doubled its employees in recent 3 years.

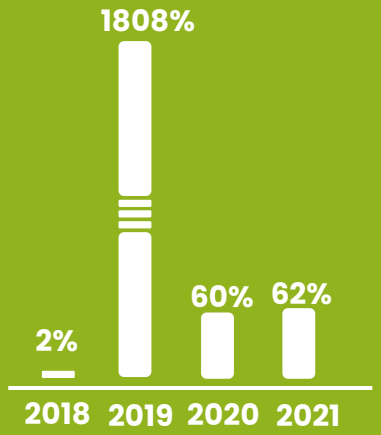
Profitability

Net Income/Shareholders equity



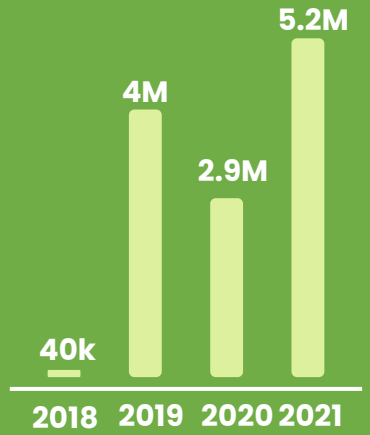
Key ratio

Inventory Turnover



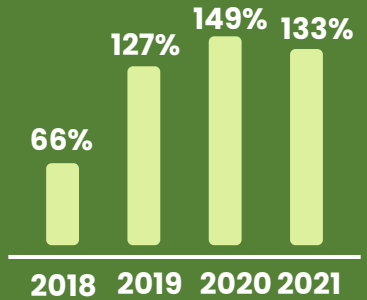
Seems, Inventory Turnover stabilized after 2020.
They had a good sale at 2019.

COGS



Cost of Goods Sold

Leverage

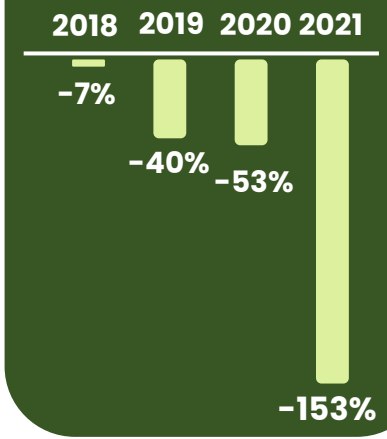


Their debt was around 133% of their equity in 2021.

ROE

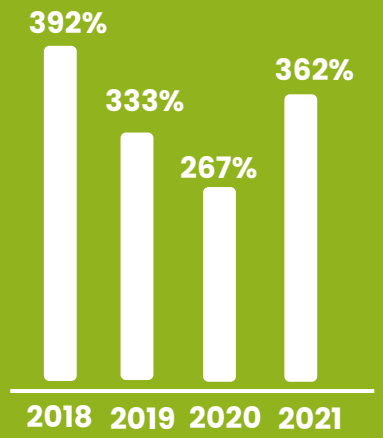
Return on Equity!!!!

The company lost $1.5 for each $1 of its equity in 2021.



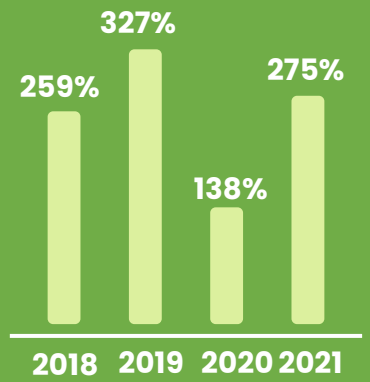
Key ratio

Current ratio



the company cannot meet its short-term obligations

Quick ratio

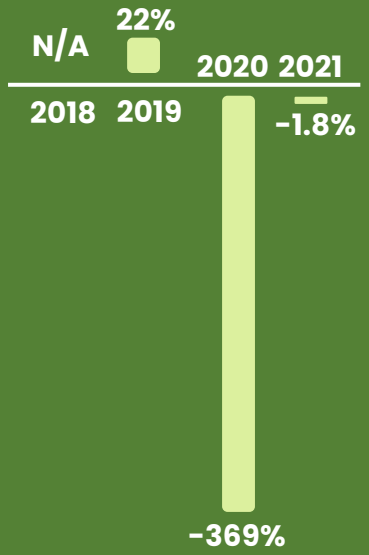


There is a high risk of loss of solvency in this company.

GPM

Gross Profit Margin

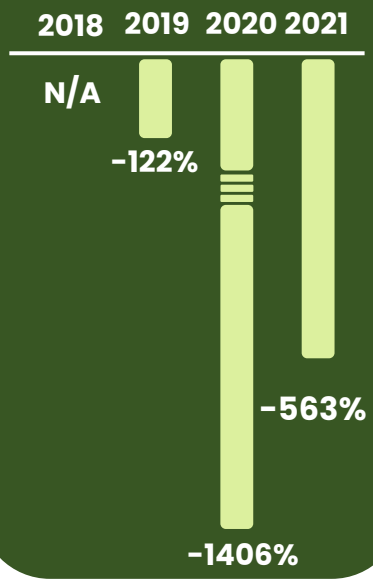
Costs of production exceed total sales in recent years.



OPM

Operational Profit Margin

The company spends too much money. Manufacturing costs or its overhead costs are too high



Key issues

Costs(Salary, R&D, production), and Sale

Limited variety of food products

↑ R&D ↓ sale

Limited to Local demands

sale ↓

Good for future, not now

sale ↓

Low skill employee

↑ Cost ↑ R&D

Out of the customer's budget

↓ sale

Problem!

- ❑ Complex
- ❑ relatively expensive
- ❑ Limited to local markets
- ❑ Not well-known to customers
- ❑ Good for future

Opportunity

Their product is based on facts that might be realized in near future, faster than we imagine, and there is a high chance for global demand for indoor agriculture before 2030.

2030

Drylands of the earth

Now (<40%)

2050 (>90%)

They have a futuristic idea that is based on the market demand in the future. In another word, make it in now and harvest tomorrow.

Solutions

Reduce the costs
The units are very expensive. 2-3 times more than similar

Make it global
Find new opportunities around the entire globe.

Monitor the customers
Provide applications to monitor the customers and consult them

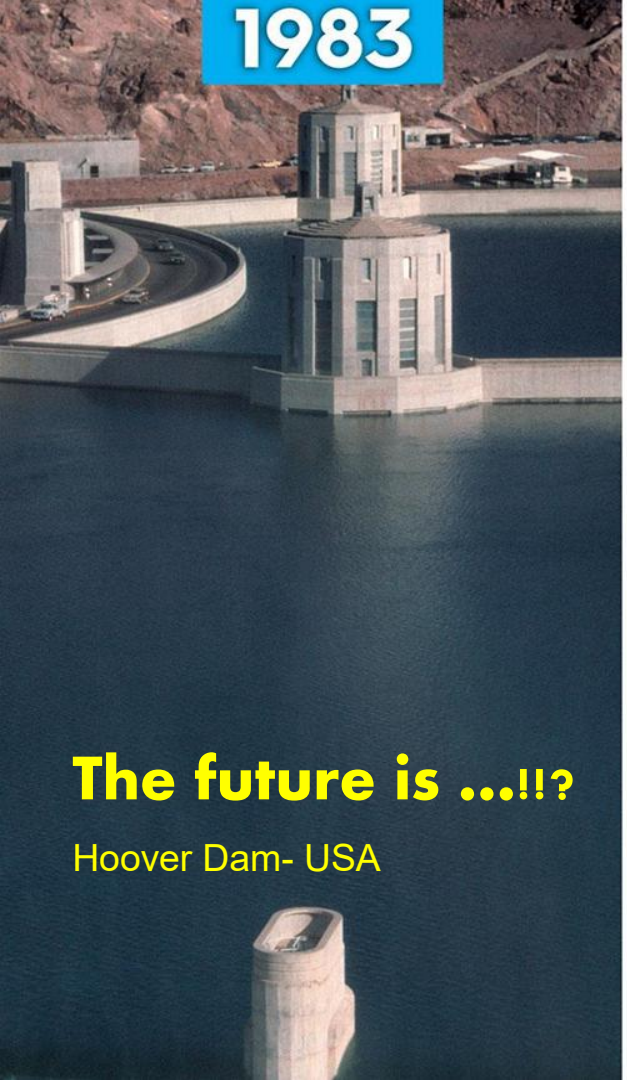
Improve the Skills
They are paying a lot for consultants; it might be better to establish a part of skills at home.

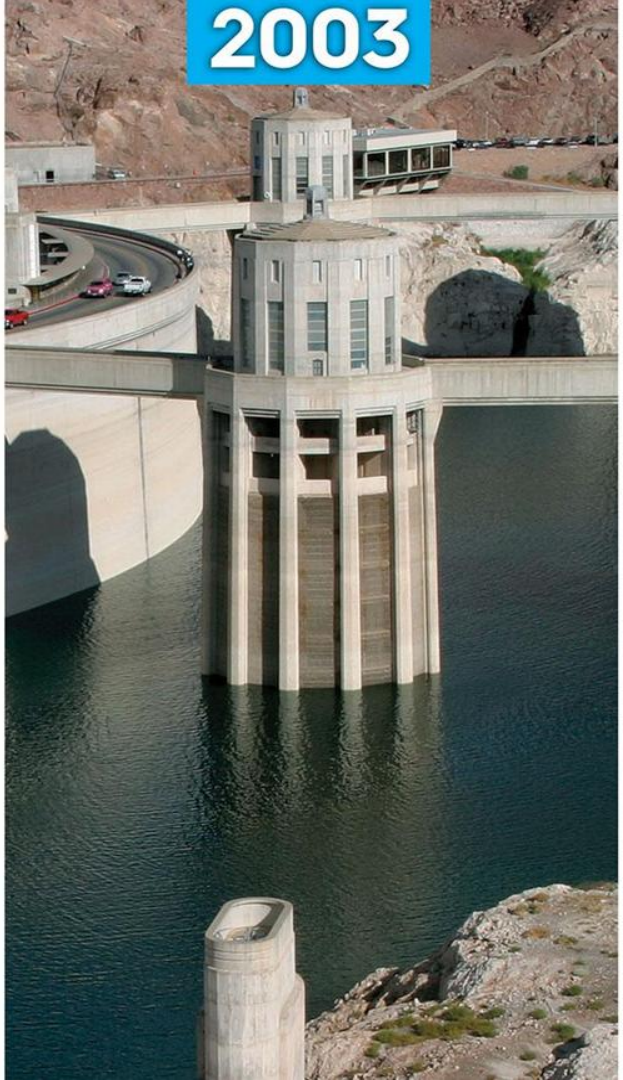
Put Share in customer's product and network
Making headquarters from local customers

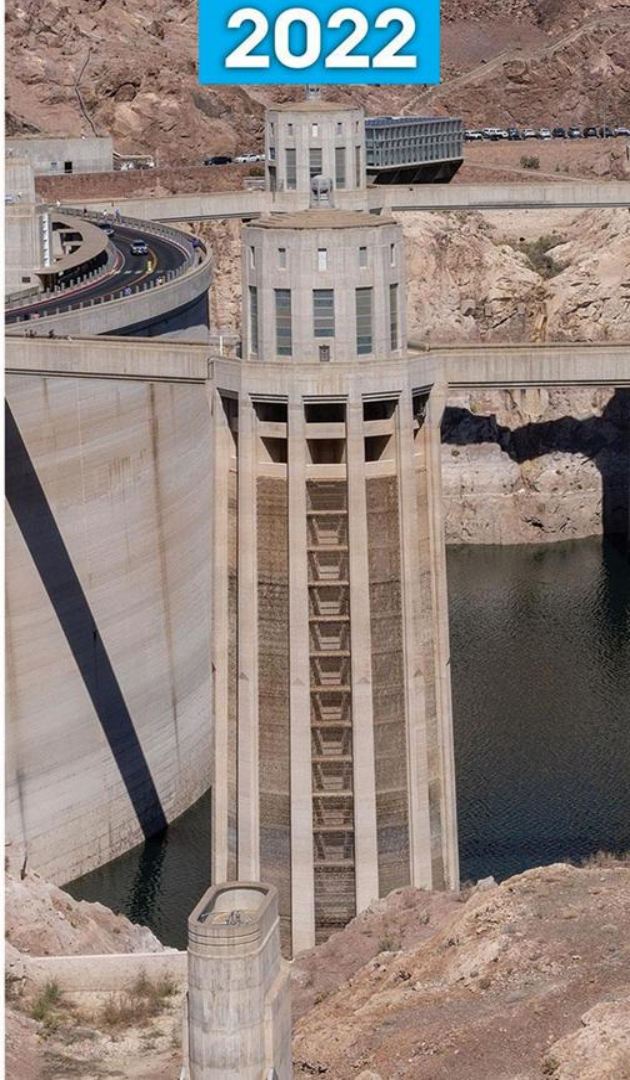
Schools of indoor farming
Prepare the people for future

Finance Proposal

Look into facts...

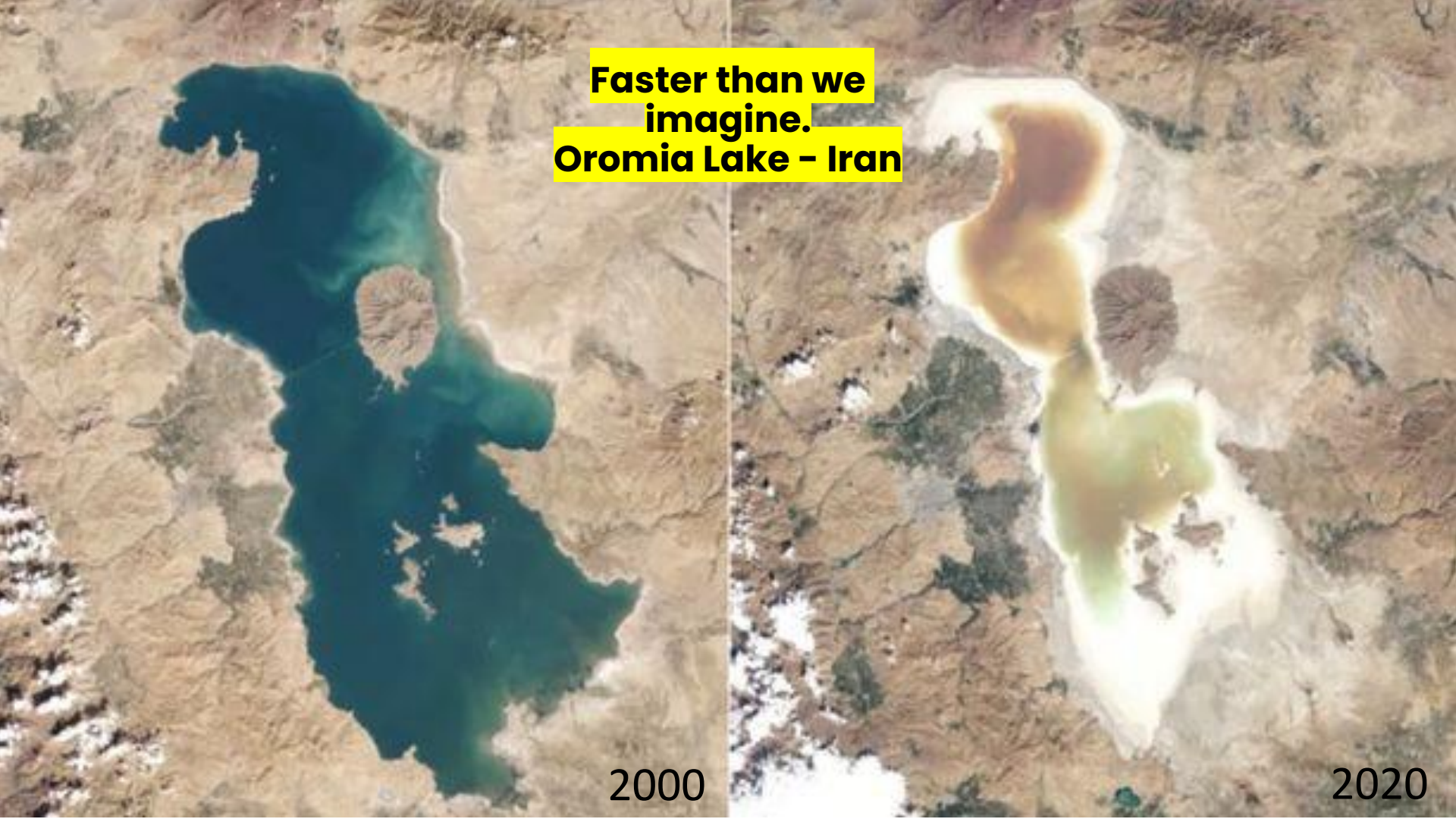


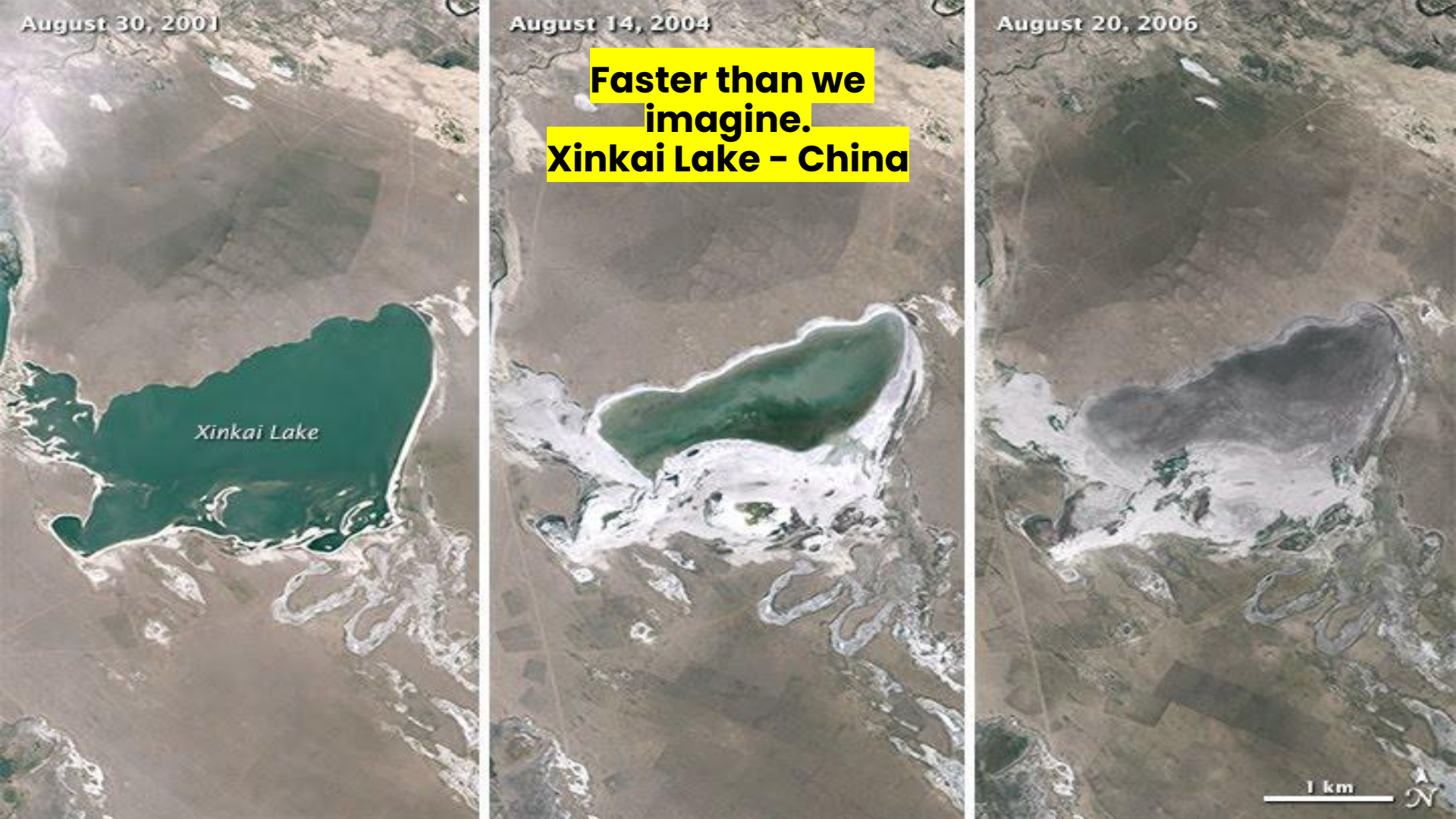




The future is ...!!?

Hoover Dam- USA


Faster than we imagine.
Oromia Lake - Iran
2000
2020


August 30, 2001
August 14, 2004
August 20, 2006
Faster than we imagine.
Xinkai Lake - China
Xinkai Lake
1 km
N


Faster than we imagine.
Lahontan Wetlands
Lahontan lake, Nevada


Great Salt Lake


Salt lake - Utah


Lake Abert


Uganda, Africa


Faster than we imagine.
Aral sea - Kazakhstan


It is happening faster and faster...
Australia
Bullfrog
Halls Creek
2 km
Bullfrog
Halls Creek

Other facts ...

Invest your money in deserts

Threat = Opportunity

- ✓ Drylands are the Heart of economy
- ✓ Great for sustainable products

Future

Education

We are not ready for this rapid change.

we need:

- ✓ Education
- ✓ New Politics
- ✓ Social media's support
- ✓ . . .

1. Cold lands

2. Drylands with high food demand

3. Drylands with high water stress

Potential customers

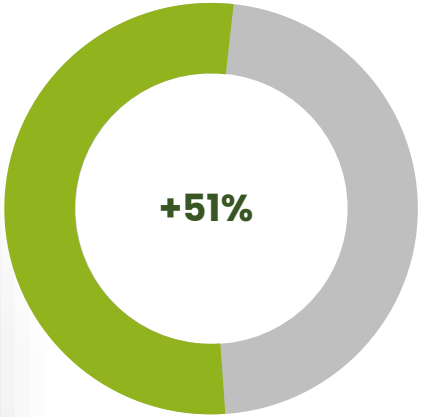
The pandemic was a gift for SSS.

The necessity of **self-sustainable systems (SSS)** was established

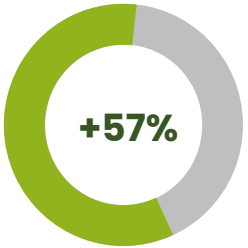
- ❑ **Millions of workers were laid off**
- ❑ **Millions had to work at home**
- ❑ **Life and energy Costs increased**

By an indoor agriculture system, people are able to:

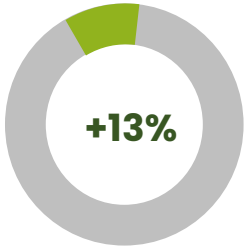
- ❑ **Run their own business at home**
- ❑ **Make food in their backyard**
- ❑ **Afford their finance**
- ❑ **Support their local community**



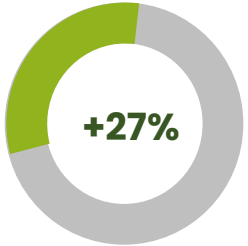
Believe in SSS



layoffs



Living costs



Remote jobs at home

Solution 1 – change the taste

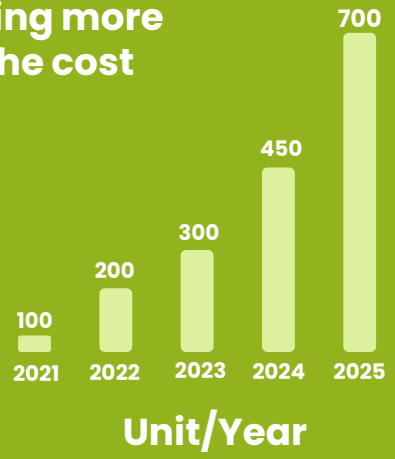
Cold lands

Lands with High food demand

Lands with harsh weather

Increase your sale by finding more customers and reducing the cost

- ❑ Go to the cold or drylands
- ❑ Share with farmers
- ❑ Reduce the cost of units
- ❑ Use local materials and supply



Solution 2 – Work Smart and hard

Establish the demand

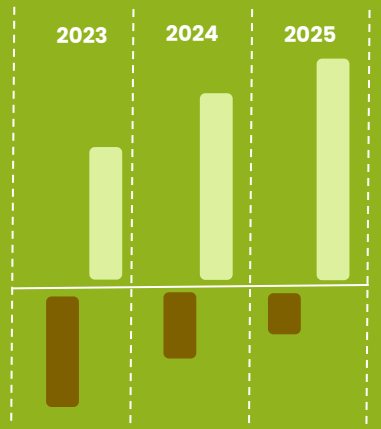
Consult the new customers

Find New ideas

Upgrade the skills

CubicFarm school = Think Green

- ❑ Upgrade the farmer's skills
- ❑ Establish the demands
- ❑ Prepare the minds for future changes
- ❑ Change the policies
- ❑ Discover new ideas
- ❑ Skill-based schools
- ❑ Make the new customers



Education cost / Return

Benefits of the program

- ✓ Fast program for each student (3 months)
- ✓ Sell a Cubicfarm unit with a discount (90k instead of 160k)
- ✓ Free financial model for bank loan approval (based on their claim)
- ✓ Free shipping of units across the entire globe

Great for customers, Good for CubicFarm...

CubicFarm school

- Farmers/year: 80
- Program costs: 25K
- Program length : 3 Months
- Initial Investment: 3.4M

Breakeven analysis

Initial investment
Costs to make the school

3.4M

Sales to Breakeven
They can afford 80 student /year

138

Time to Profit
time to breakeven

<2 years

17.6M

Sales to Breakeven
The goal is to pay all the previous liabilities and debts with this plan.

20%

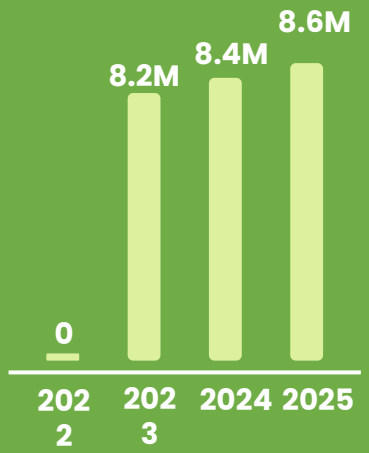
Contribution Margin

Finance and Revenue

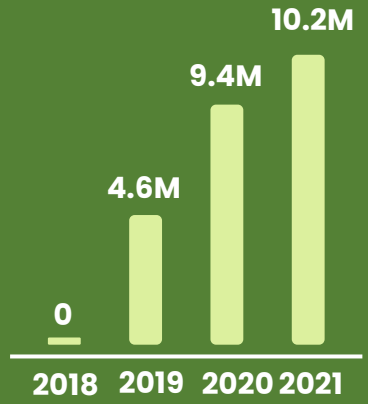
Initial investment

The company needs an initial investment to run the school for buildings and 20 units for first quarter.

Sale

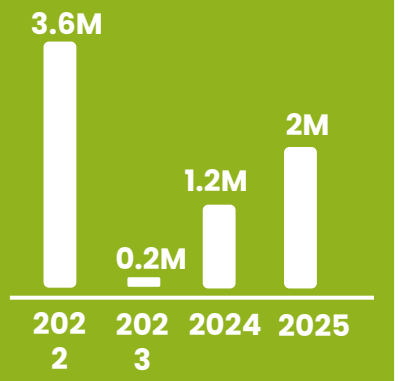


Cash Revenue



Proforma

Net Income



The program is trying to pay the previous liabilities and debts.

Sensitivity

Unit sales

1611%

#

1268%

#

Sale Price

Net Present Value

0.6M

#

Variable costs

1314%

#

675%

#

Fixed Costs

	A	B	C	D	E	F
1	**Discount Rate**	0%	0%	0%	0%	
2	**Tax Rate**	20%				average Tax rate in British Colombia
3	**Net Present Value**	$616,460				
4						
5		**year 0**	**year 1**	**year 2**	**year 3**	
6						
7	**Initial Investment**					
8	R&D	$4,000,000	$400,000			
9	Pre Launch Marketing	$1,215,000				
10	Inventory	$1,800,000				We need this inventory to run the next year, we should have enough money to make units
11	Total	$7,015,000	$400,000			
12						
13	**Operating Cash Flows**					
14	Volume of Sales		80	81	82	
15	Sale Price		$ 128,000.00	$ 129,280.00	$ 130,572.80	
16	Cash Revenue	$5,000,000.00	10,240,000	10,471,680	10,706,970	
17	Special discount per unit (%)		20	20	20	
18	Variable cash costs		$8,464,000	$10,392,300	$10,520,600	
19	Fix cash costs		$4,640,000	$4,665,000	$4,690,000	
20	Cash Flow Before Tax	$7,015,000	$ (2,464,000)	$ (4,585,620)	$ (4,503,630)	
21	Taxes		$ (492,800)	$ (917,124)	$ (900,726)	
22	Cash Flow After Tax	$ 7,015,000	$ (1,971,200)	$ (3,668,496)	$ (3,602,904)	
23						
24						
25	Net Cash Flow	$ 7,015,000	$ (1,971,200)	$ (3,668,496)	$ (3,602,904)	
26						
27	**WAAC**	11%				
28	Debt	4,538,000				
29	Equity	41,091,922				
30	Cost of Debt	0				
31	Cost of Equity	12.00%				
32	Total liabilities	13,586,000				
33	Inetrerst expense	492,399				
34						
35	**Sensitivity Analysis**					
36	Base NPV	$616,460				
37						
38	Variable Tested	NPV at +1%	Sensitivity			
39	Unit Sales	10,547,200	1610.93%			
40	Sales Price	$ 8,437,760.00	1268.74%			
41	Variable Cost	8,717,920	1314.19%			