

# Grow Arctic Greenhouse

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### Team:



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## Summary:

I - Arctic Greenhouse

II - 3D Modell

III - Cost Structure

IV - Future Plans

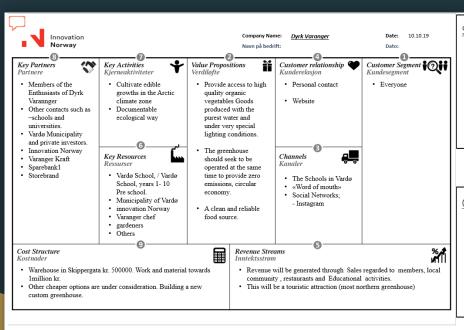


### I - Arctic Greenhouse:

- Location: Vardo
- Goal: Supply the population with a sustainable and clean food source
- "This is an opportunity for the community of Vardo."







### Strength:

- Easy growth vegetables
- Local opportunities / community
- Less pollution

#### Weakness:

- The winter and polar night
- Intended length of sun exposure
- Rough winds

### Opportunities:

- No restriction
- No imported vegetables
- Helpful in mental health

### Threats:

Weather

### **Business Model**

### Value for Vardø:

- Provide access to high quality organic vegetables
- Zero emissions, circular economy.

### <u>SWOT</u>-analysis of the Build:

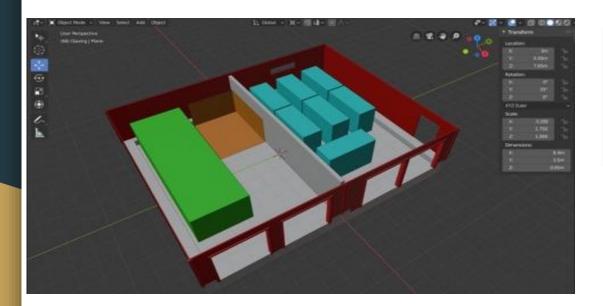
Major problem is Weather and Energy supply

## II- 3D Modell:



The Original Building

## First Floor: (Agro Tech)





### Strawberry farm

**Size:** 3.1m x 1.25m

**Installation height:** 2.5 to 5 meters **Number of seats:** from 204 to 476 pcs. **Productivity:** from 80 kg / month

Power Consumption: 1 kW



### Salad and Greens farm

**Size:** 3.1m x 1.25m

**Installation height:** from 2 to 5 meters **Number of seats:** from 360 to 1200 pcs. **Productivity:** from 65 kg / month

Power Consumption: 1 kW

## Second Floor: A Traditional Build







### III- Cost Structure:

Greenhouse Materials

> Soil : 1,890 kr (40ltr) Fertilizer : 295 kr

(40ltr)

Timber: between 68.9

and 459 kr

Metal: Between 89.24

and 333.03 kr

Fiberglass: €1 and

€2 per m²

Greenhouse Agro tech

Seeds: Per vegetables

pack;

25kr-85kr

- Agro-Tech Installations;

**Total project cost:** 

$$50 \text{ sq m} = 70$$

000€

100 sq m = 133

000€

200 sq m = 266

000€

- The House; **500,000 NOK** 

### IV- Future Plans:

- > Tourism
- Solar-Domes



#### Strength:

- Unique (does not exist in the arctic, except for Svalbard)
- Local growth
- Sustainable and ecological step

### Weakness:

 Almost none, considering <u>Vardø</u> <u>allredy</u> is a visited place, there is no weakness in adding something extra

#### Opportunities:

- No restriction
- Hurtigruta
- Helpful in mental health (for both visitors and inhabitants)

#### Threats:

- ❖ Weather
- Low market, less availability (tourism)

Cultural events and activities

# Thank You!