

# **Technology Solutions**

We developed a modular aquaponics technology that increases aquaponics productivity (fish and greens) while increasing also water savings, food safety, animal welfare and reducing maintenance interventions and production costs. This is acomplished through our dual loop design with aerobic biodigesting, improving waste management, monitoring and control and total dissolved oxygen availability.

#### **Customer needs**

The fresh fish and organic greens satisfy a growing trend of healthy and sustainable conscious urban consumers.

It is also in line with restaurants and food retailers looking for local fresh ASC certified fish and healthier and more innovative approaches to fresh vegetable products.





#### **Key Partnerships**

Partners include local municipalities (T. Vedras and Lisbon, to coordinate schools and other groups guided tours), an insect protein manufacturer, MARE (involving 2 universities and internships research team, for R&D and also to train and grow the team), a sustainable fresh food packaging company, a fish feed manufacturer and food retailers.

### **Key Activities**

After implementing the aquaponic system, operating and exploring the aquaculture and hydroponics components, to deliver certified fresh fish and organic greens, including feeding, germinating, processing, packing, germinating, procurement, sales and distribution.

### **Key Resources**

Existing key resources include the team experience, knowledge, partners and developed technology. At operational level, input resources are fish feed, plant seeds, fish fry, seedling substrate and additional supplements. Virtually almost no water and energy inputs.



## **Value Proposition**

Our solution solves the consumer need to find quality fresh food from trustable sources. Regarding seafood, our finfish satisfies consumers, restaurants and retailers by delivering a sustainable and responsible ASC certified local fresh product, free of medication, chemical usage and heavy metals. Regarding greens, we satisfy a trending demand by delivering a large variety of fresh organic vegetables, not subject to seasonality constraints, locally produced and guaranteed to not contain pesticides. Intense tasty herbs is a significant value for chefs.



Depending on customers segments they might be approached several ways: food product samples; guided tours to production facility; promoting products at fairs, exhibitions and on sales points of food stores; digital marketing; developing food events with cuisine chefs.



### **Customer Segments**

Main customers: food retailers (supermarkets, organic and gourmet food stores), restaurants, hotels, ecommerce (home delivery to consumers or company's offices), schools canteens, universities and companies in general. We identified the following consumer targeted archetypes: healthy consumer (looking for healthy and organic food); green consumer (looking for sustainably produced food, with small environmental footprint and animal welfare), local consumer (looking for locally grown and trustable food sources).

#### Channels

Adding to the strategies outlined in "Customer Relationships", we intend to communicate directly with B2B customers. The company will have its inside sales force and distribution logistics, also linked to other carriers through partnerships. Home and office delivery of fresh food baskets will also be assured.



#### **Cost Structure**

COGS are mainly composed of fish feed, seeds and germination substrate, packaging and fish fry, representing 26% of total operating costs and 11% of sales value. Human resources represent 58% of operating costs and 24% of sales value. Supplies and services represent 16% of operating costs and 7% of sales value.

### **Sources of Income**

The sources of revenue result from the sale of fresh food products produced by the company, namely the local certified fresh fish, organic vegetables (loose, packaged or in baskets), including leafy greens, herbs, fruits and also the sale of by-products, such as fish waste, organic compost and organic liquid fertilizer.

