



Sustainable Precision Agriculture
Research and Knowledge for Learning
how to be an agri-Entrepreneur

GREECE

AETHELEON

BUSINESS MODEL CANVAS
in the field of SUSTAINABLE
PRECISION AGRICULTURE

STUDY CASES COLLECTION



Co-funded by the
Erasmus+ Programme
of the European Union

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INFO COMPANY

AETHELEON (small scale organic family farm- Private company)

Address: Triandria, Thessaloniki, Greece

Founding date: 2013

Crops: Origanum vulgare ssp. Hirtum

Number of employees: 2 owners & 5 employees depending seasonal works (harvesting)

Contact

Name: Michalis Georgaras

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Email: michaelg@aetheleon.com

Website: <https://aetheleon.com>

Social: <https://www.instagram.com/p/BsQbQVngqTU/>

Date of the interview: 15.11.2018

Name of the interviewer: Maria Partalidou [assistant: Dimitra Lazaridou]

INFO PA introduced

What kind of PA innovation was introduced in the company?

The company AETHELEON has introduced several PA innovations. They do not use pesticides or herbicides, but seek natural alternatives that maintain the region's equilibrium. Many other herbs, such as spearmint and Saint John's Wort, live side by side with the oregano.

Starting with Sensors to detect how the oregano plants reflect solar radiation. This allows the entrepreneur to determine the optimal harvest time for the highest quality of the extracted oil depending on whether it is oriented/emphasizes on healing properties or taste. Remote sensing in this farm involves the recording of the spectroscopic characteristics of the crops (i.e, how vegetation reflects different wavelengths of solar radiation) by aerial and/or satellite means. The aim is to capture the spatial variation of the field, so that cultivation practices and inputs (fertilization, plant protection, irrigation, harvesting) are localized.

They also use drones to measure, observe, and respond to the variability found in crops. They also use special cameras (multispectral and infrared) adjusted on drones, to collect data on the growth of our plants. With the help of a private company (Ecodevelopment SA) they have several years' worth of analytics for predicting oregano growth patterns.

When?

In March 2016, they started a collaboration with researchers from the Institute of Genetics for Improvement & Plant Genetic Resources, the Institute of Soil Resources of ELGO DIMITRA, the Department of Pharmacology and Pharmacology of the Faculty of Pharmacy of the Aristotle University of Thessaloniki and the Agricultural Laboratory of the Agricultural School of the Aristotle University of Thessaloniki. The collaboration with the company Ecodevelopment also started during that time or even earlier.

Why? What was the motivation/problem to solve?

The use of essential oils is known for many years in natural treatments and wellness remedies, or even as cleaning and disinfecting agents. Their beneficial properties improved everyday life and added to our well-being in history. However, Michalis found out that there were variations in the quality and characteristics of the essential oils in the market. Therefore, he identified a lack of reliable information about the origin and quality of essential oils in the market. As Michalis said, during the BMC session, flights with drones, equipped with high-definition multi-spectral cameras, high-resolution RGB cameras and infrared cameras are used. The data are analyzed by a group of experts (agronomists and field biologists) that cooperate with the company. The latter inform Michalis in regard to the evolution of the plants and he determines the appropriate harvest date, depending on the desired quality characteristics.

Having all these data it is possible to take decisions and alter cultivation practices and to ensure the best possible quality of oregano oil. Remote sensing also helps us spot any imbalances in the field and target them specifically, reducing interventions.

How did you learn about these new technological solutions?

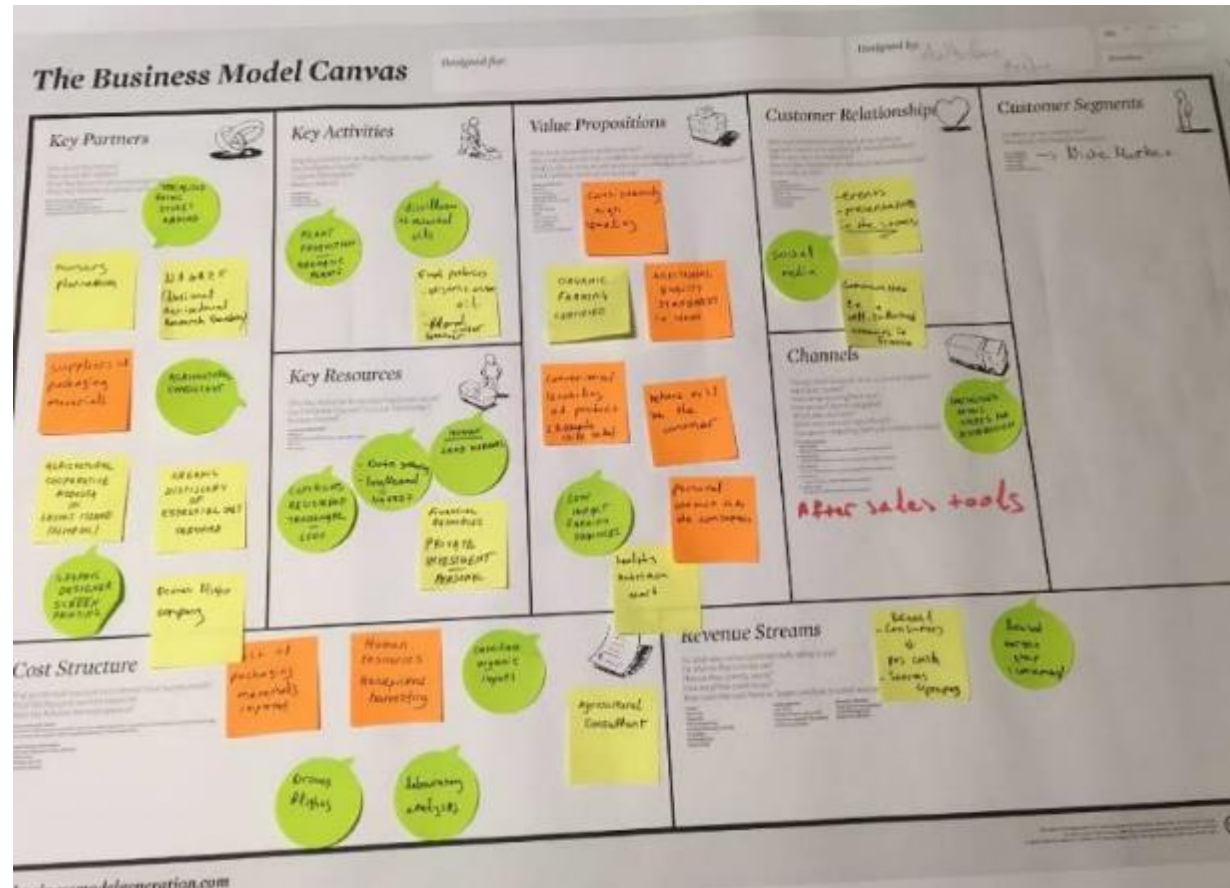
It was the network of academics and our own aim to maximize natural growing techniques by incorporating drone sensor technology as part of an attempt to marry tradition with technology.

For instance, the researchers of the Institute of Soil and Soil Resources have created an innovative application based on Facebook /Messenger. Through this, they are able to monitor all the data of our cultivation in real time from any device - smartphone, tablet, PC.

Have you been supported / assisted / trained by someone?

We established a cooperation with the National Agricultural Research Foundation and the Aristotle University of Thessaloniki, in an effort to bridge the gap between theory and practice.

We have also been supported by a private company (responsible for remote sensing applications) in norther Greece (Thessaloniki). We read the exact description of the telescope at the company's website. Our farm is also certified by BIOHellas, an Inspection Institute for Organic Products that have also been very supportive.



BMC - report

Value Proposition

Key Partners	Key Activities	Value Proposition	Customer Relationship	Customer Segments
	Key Resources		Channels	
Cost structure		Revenue Streams		

- Consistent high quality
- Certified organic farming
- Additional quality standards (vegan)
- Personal contact with clientel
- Low impact farming practices
- Healthy nutritional awards

Taking into consideration customer's needs
 Convenial usability of products (child safe packaging)
 Unique antibiotic and antioxidant properties

Customer Segments

Key Partners	Key Activities	Value Proposition	Customer Relationship	Customer Segments
	Key Resources		Channels	
Cost structure		Revenue Streams		

- Niche market
- Diversified (more aware customers)
- Special stores

Distribution Channels

Key Partners	Key Activities	Value Proposition	Customer Relationship	Customer Segments
	Key Resources		Channels	
Cost structure		Revenue Streams		

Specialized retail stores for distribution

- Restaurants
- Internet
- Direct sales

Customer Relationship

Key Partners	Key Activities	Value Proposition	Customer Relationship	Customer Segments
	Key Resources		Channels	
Cost structure		Revenue Streams		

- Events
- Presentations in retail stores
- Social media (instagram, blog)

Revenue Streams

Key Partners	Key Activities	Value Proposition	Customer Relationship	Customer Segments
	Key Resources		Channels	
Cost structure		Revenue Streams		

- Customer's cash
- Price list
- Asset sale (transactions)

Key Activities

Key Partners	Key Activities	Value Proposition	Customer Relationship	Customer Segments
	Key Resources		Channels	
Cost structure		Revenue Streams		

- Producing Greek organic oregano essential oil
- Organic, extra virgin olive oil & oregano essential oil
- Production- aromatic plants (seedlings)

Key Resources

Key Partners	Key Activities	Value Proposition	Customer Relationship	Customer Segments
	Key Resources		Channels	
Cost structure		Revenue Streams		

- Human (land workers)
- Intellectual (NAGREF)
- Financial (private investment)
- Copyright registered (trademark/logo)
- Data gathering

Key Partners

Key Partners	Key Activities	Value Proposition	Customer Relationship	Customer Segments
	Key Resources		Channels	
Cost structure		Revenue Streams		

- National Agricultural Research Foundation
- Specialized retail stores (abroad)
- Nursery plantation
- Suppliers for specialized packaging material (i.e violetglass bottles)
- Agricultural consultant
- Agricultural Cooperative Modousa in Lesvos island
- Certified organic distillery
- Graphic Designer
- Drones company

Cost Structure

Key Partners	Key Activities	Value Proposition	Customer Relationship	Customer Segments
	Key Resources		Channels	
Cost structure		Revenue Streams		

- Planting
- Certified organic inputs
- Human resources (handpicking)
- Packaging (materials imported)
- Drones/flights
- Laboratory analysis

IMPACT ANALYSIS

