



**G A E A**

**COMPANY PRESENTATION**

JULY 2016

# AFTER CHAOS AROSE **GAEA** EARTH GODDESS **MOTHER OF ALL**

... In the beginning it was “Chaos” then GAEA – mother earth appears  
and gives birth to the mountains, the seas, the sky...

... The history of creation in ancient Greek mythology...

... GAEA a symbol of fertility, environmental awareness, the goodness  
of earth...



In the mid 1990's and although Greece produces a wide variety of top quality food products thanks to the excellent climate that makes the earth fertile, it was difficult to find Greek products in the international markets.

... and then, mother earth – GAEA appeared again and sealed Greek tradition, top quality and unique taste within the GAEA product range, so that everybody can enjoy tasteful, healthy food.

GAEA was founded in 1995 upon the realization that Greek agricultural food products despite their inherent high quality and good taste, were absent from the international markets.

# Gaea's VISION



To be the absolute leader in the category of Mediterranean Greek cuisine/meze in the international fine foods arena, synonymous with quality, traditional, authentic and innovative Greek specialty food products and to promote Greek meze as the authentic Greek Mediterranean lifestyle and cultural culinary experience.



# Gaea's FACTORY

GAEA's factory is situated in a 15.000m<sup>2</sup> plot of land, 1.5kms from the center of Agrinion city. The factory building covers an area of 6.500m<sup>2</sup> with 4 fully automated production lines:

- an olive oil bottling line, 6.000 bottles per hour.
- an olive bottling line, 7.000 jars per hour
- a line for the production of spreads and sauces, 3.500 jars per hours
- line for the production of the innovative olive "snack pack", 3.000 packs per hour

plus a warehouse of 3.000m<sup>2</sup> with refrigerated storage (200m<sup>2</sup>) and 10 stainless steel tanks, 30tons each, for olive oil storage.



# Commitment to **QUALITY**

**Secure Olive oil** as raw material through strategic alliances with major regional private producers and coops.

**Formation** of pioneering joint ventures with renown coops e.g. Kritsa to

- Secure quality
- Secure capacity
- Promote innovation and RnD
- Incentivize young farmers and agricultural entrepreneurship

**The Sitia project**, Europe's biggest quality (D.O.P.) olive grove

**Continuous** pursuit of excellence in standardization and quality certification:

- BRC : TUV Nord
- IFS: TUV Nord
- ISO 14001: QMS CERT
- ISO 22000: EQA HELLAS
- NOM-GMO: The NON-GMO Project
- KOSHER: The Jewish Community of Athens
- FDA approved factory
- NOP certification for US organic
- DIO certification for European organic
- SMETA Ethical working standards certification by SGS



# Gaea TODAY

# 2 brand in the olive oil category in **Germany**

# 3 brand in the olives category in the **UK**

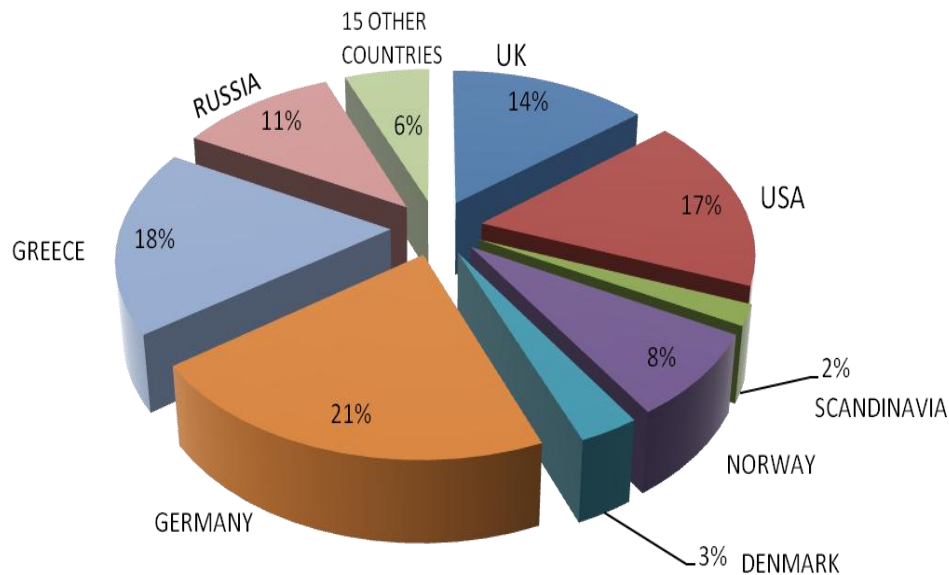
# 1 brand in the olives category in **Norway**

# 2 brand in olive oil category in **Norway**

# 1 brand in the organic olive oil category in **Greece**

# 1 brand in the organic olives category in **Greece**

# 4 brand in the olive oil category in **Russia**



Gaea Sales Shares-2015  
**82% export**



# Gaea's **VALUES**

- To sell the highest quality natural and organic products available.
- To create wealth through profits & growth: sustainability.
- To satisfy and delight our customers.
- To create ongoing partnerships.
- To support team member happiness.
- To Innovate in pursuit of excellence.
- To care about our community & our environment.
- To Promote consumer wellness through healthy eating education.



# Our **new** redesigned **Product Range**

- Extra Virgin Olive Oils
- Olives
- Tapenades
- Sauces
- Vinegars & dressings
- Greek Specialties



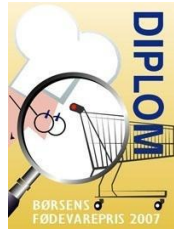
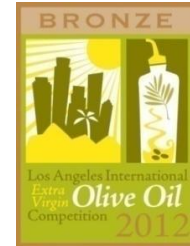




More about **GAEA**



# Some of our 75 awards





The 1st  
Extra Virgin Olive Oils  
in the world that  
have been certified  
Carbon Neutral!



# Sustainability

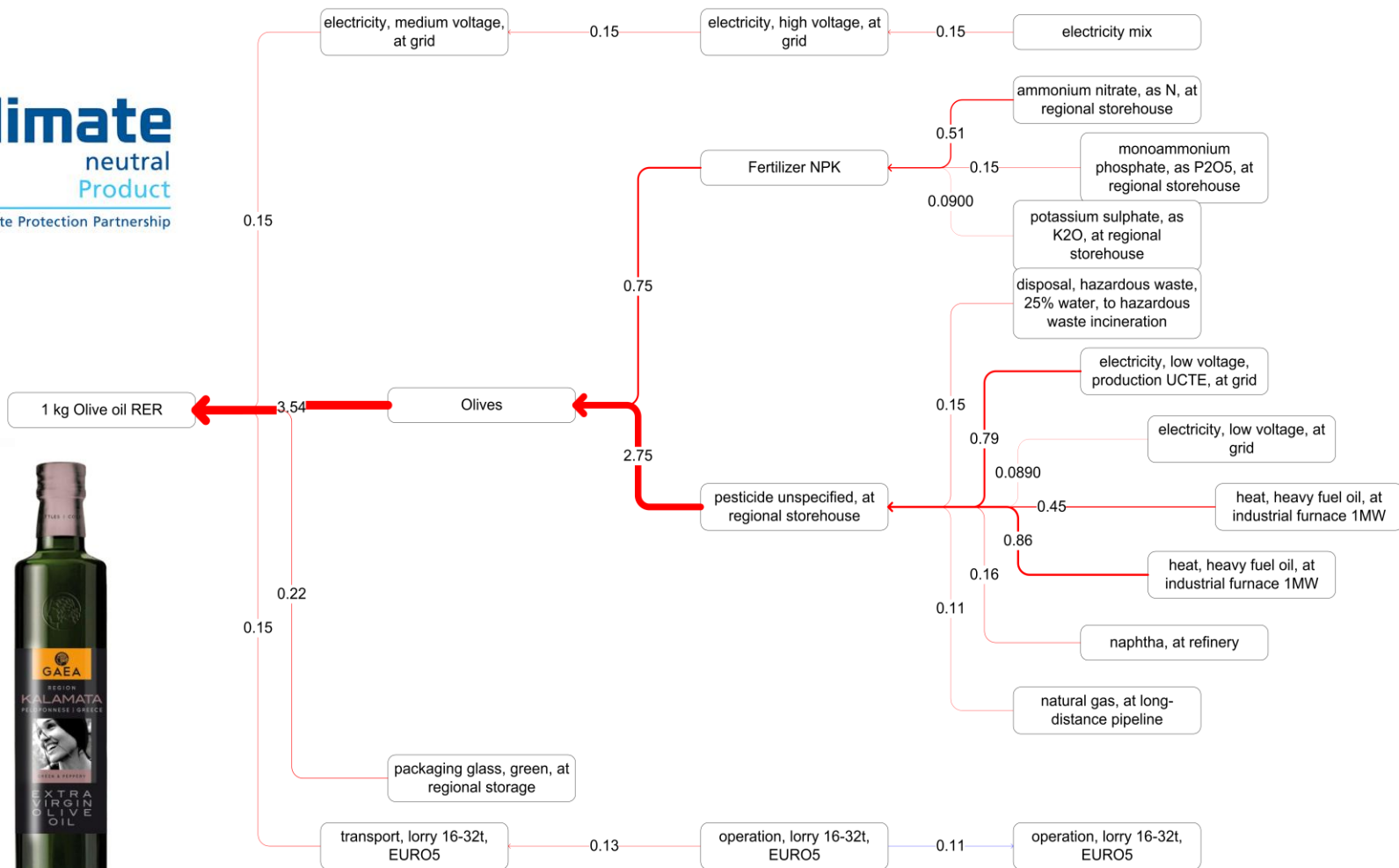
- 1<sup>st</sup> carton neutral olive oil in the world.
- The worlds 1<sup>st</sup> evoo that has measured its water foot print.



# Calculations



© myclimate – The Climate Protection Partnership



# The 1st Water Footprint for Olive Oil products!

**GAEA calculated the first Water Footprint for its Olive Oil products and became a member of the Water Footprint Network (WFN) which is a non-profit foundation under Dutch law. It is essentially an international network by and for its partners**





# SOCIAL responsibility



- The **Antiparos** initiative / Re-Inspire Greece
- **Vranas**, the olive press museum
- **Kritsa** profit sharing that rewards exceptional quality





# Innovation in Socially Responsible Growth

KRITSA EXTRA VIRGIN OLIVE OIL

The first joint venture company with  
an agricultural cooperative

Gaea –Kritsa Extra Virgin Olive Oil,  
produced at Kritsa – one of Crete's  
oldest olive groves with the help of  
an ideal micro-climate and the  
island's long standing heritage in  
cultivating olives!





# easyJet Product Catalogue

## Groundbreaking Innovation through research & development

### Gaea snack pack olives:

- The 1st, preservative free olive snack pack in the world, done the impossible
- 12 months shelf life without refrigeration
- Transforming the use of olives to a healthy snack (dry product, absence of liquids) that everyone can easily enjoy in every aspect of our modern way of living.
- With the lowest salinity levels in the world
- Rich in antioxidants, fiber etc.
- Getting us into new sales channels (EasyJet)

SNACKS

#### Kids' Snack Pack

£4.00 €5.00

Pack contains: Cheddar Cheddars 20g, Dole Fruit Ant 10g, Hula Hoops 10g, Kaffogis Rice Crisps Bar 20g, Sunny Raisins 42.5g, Kinder Snack Size Bar 21g

#### Boxerchips

40g  
£1.80 €2.50 each  
Ready Salted or Salt & Vinegar

#### Pringles

40g  
£1.80 €2.50 each  
Vegetarian Sour Cream & Onion

#### McVitie's Mini Cheddars

50g  
£1.50 €2.00

#### Penn State Pretzels

100g  
£1.50 €2.00

#### Spicy Peanut Crunch

40g  
Delicately subtle combination of mild cheddar and peanut crackers - suitable for vegetarians.  
£1.50 €2.00

#### Luxury Nut Bar Mix

45g  
£1.80 €2.50

Premium mix of dry roasted, lightly salted almonds, cashews, hazelnuts, macadamia and pistachios. Suitable for vegetarians & Gluten-free.

#### Gaea Pitted Green Olives

60g  
Lemon & Oregano  
£1.50 €2.00





# EVOO GAEA FRESH 500ml in dorica bottle



## The 1<sup>st</sup> Olive Oil in the world that guarantees:

- Fresh from the press
- “Vintage” harvest date declaration (like precious wines)
- Sensory profile analysis
- Longer self life
- Award Winning Quality and Taste

To maintain “freshness” we have replaced oxygen in all tanks in Kritsa Coop with nitrogen, thus stopped olive oil oxidation. Nitrogen is also being added to the head space of the stylish bottle, where we bottle our exceptional **GAEA FRESH Extra Virgin Olive Oil.**

- Age old TRADITION
- Results in a VIRGIN of exceptional QUALITY
- Modern TECHNOLOGY
- Seals in the intense AROMAS, COLOUR, TASTE
- Protecting it from OXYGEN, LIGHT AND HEAT.

**GAEA FRESH** is produced in the picturesque village of Kritsa in Crete, World Champion in 2008 and winner of multiple international awards.

# Retro-Innovation





## CONSUMERS REWARDING ETHICAL COMPANIES.

- Ethics have become increasingly important to a company's reputation at a time when public opinion can go viral in an instant. New research from Mintel reveals that **56** percent of US consumers stop buying from companies they believe are unethical.
- What's more, **over one third (35 percent) of consumers stop buying from brands they perceive as unethical even if there is no substitute available** and **27 percent** stop purchasing even if they think the competitor offers lower quality.
- Overall, more than three in five consumers feel that ethical issues are becoming more important (**63 percent**).
- **29 percent** of consumers take to social media to share their support of ethical companies.

# Research

- Athens University Pharma school measuring and mapping antioxidants
- UC Davis and USDA: clinical trials to establish higher health benefits of quality evoo
- Mechanical harvesting, aged trees, uneven & mountainous terrains.





# Effects of extra virgin olive oil oleocanthal and oleacein content on platelet reactivity in healthy adults

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## Introduction

- Cardiovascular disease (CVD) is a chronic inflammatory disease thought to be propagated by platelet-dependent processes.
- CVD risk reduction strategies include anti-platelet therapeutics and flavonoid-rich food consumption.
- Extra virgin olive oil (EVOO) contains >30 phenolic compounds with antioxidant, anti-inflammatory and platelet modulating properties including various tyrosols, and the secoiridoids oleocanthal and oleacein (Figure 1). The relative abundances of these phenolics vary among olive varieties.
- Oleocanthal is an *in vitro* cyclooxygenase (COX) inhibitor [1] and thus may have anti-platelet activity *in vivo*, while oleacein is a 5-lipoxygenase inhibitor with anti-inflammatory properties [2].
- By comparing postprandial platelet reactivity following acute intake of total phenolic matched but oleocanthal-rich or -poor EVOOs, we will test the hypothesis that:
  - Platelet responses track oleocanthal doses, but not the total phenolic content of the consumed EVOOs.
  - Reduction in COX-dependent oxylipins will correlate with platelet inhibition.

## Methods

### Experimental Oil Selection and Characterization:

- EVOO samples were obtained from olives harvested between November 2014 and January 2015. Oils were initially screened by quantitative <sup>1</sup>H NMR (qNMR) to determine their oleocanthal, oleacein, oleuropeinaglycone and ligstrosideaglycone content and choose the samples for clinical study [3].
- EVOO total phenolic contents of selected oils were determined by the Folin-Ciocalteu method [4] and the non-secoiridoid phenolic compounds were measured using HPLC-UV. Briefly, phenolics were resolved by reverse phase LC and identified by published relative retention times. Concentrations were estimated using a calibration curve established with the absorbance of *p*-hydroxyphenylacetic acid (IS), and normalized to the IS response.
- EVOOs chosen for inclusion in the study were an oil of Mediterranean origin obtained from a supermarket in California (Oil A), an Arbequina variety oil provided by Corto Company from California (Oil B), and a Koroneiki variety oil from Kalamata, Greece (Oil C).

### Clinical Studies and Plasma Analyses:

- Subjects (n=9) healthy males (20-40 yrs) were enrolled in a randomized, blinded, controlled crossover design to consume 40 mL of three EVOOs containing varying levels of oleocanthal and oleacein but matched in total phenolics (Oils A, B and C) with Ibuprofen (400 mg *p.o.*) as positive control on the fourth study visit.
- Plasma was collected by venipuncture immediately before and two hours after EVOO or Ibuprofen consumption.
- Platelet-rich plasma was stimulated by 1 µg/mL or 3 µg/mL collagen and:
  - Subjected to optical platelet aggregometry using a modified version of the method by Born and Cross [5]. Only low dose results are presented.
  - Analyzed by LC-MS/MS to quantify oxylipins (i.e. oxylipins) derived from cyclooxygenase, lipoxygenase, and cytochrome P450 dependent metabolism of polyunsaturated fatty acids [6].

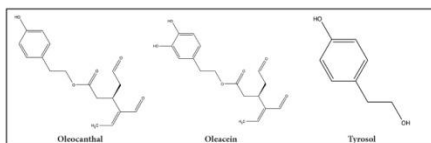


Figure 1. EVOO phenolics used as experimental oil primary selectors.

Table 1. EVOO phenolic profiles quantified by <sup>1</sup>H NMR.

Phenolic	Concentration (mg/kg)		
	Oil A	Oil B	Oil C
Tyrosol	189 ± 10	< 10	< 10
Dialdehydic Form of Oleuropein Aglycone (DAFOA)	< 10	< 10	< 10
Dialdehydic Form of Ligstroside Aglycone (DAFLA)	< 10	< 10	< 10
Aldehydic Form of Oleuropein Aglycone (AFOA)	25 ± 2	5 ± 1	23 ± 2
Aldehydic Form of Ligstroside Aglycone (AFLA)	21 ± 2	5 ± 1	10 ± 1
Oleocanthal	< 10	172 ± 8	310 ± 15
Oleacein	< 10	312 ± 15	150 ± 8
D1 Index*	–	484	460
D2 Index*	–	1.8	0.48

\* D1 Index refers to the sum of an oil's oleocanthal and oleacein concentrations

\* D2 Index = oleocanthal/oleacein ratio

Table 2. EVOO phenolic relative abundance determined by HPLC-UV.

Phenolic	Relative Abundance*		
	Oil A	Oil B	Oil C
Olive Variety	Mediterranean	Arbequina	Koroneiki
Tyrosol	19	1	3
Hydroxytyrosol	13	3	5
Vanillic Acid	0	3	1
<i>p</i> -Coumaric Acid	1	5	0
Ferulic Acid	0	0	0
1-Acetoxyresorcinol	5	22	8
Luteolin	2	4	2
Apigenin	1	1	1

\* The reported relative abundance is the internal standard normalized absorbance of the individual compound divided by the sum of normalized phenolics in all three oils

Table 3. Regression modeling of platelet aggregation and oxylipin production inhibition as a function of oleocanthal, oleacein and tyrosol dose (mg/kg body weight) in all subjects (n = 9 subjects x 3 treatments = 27).

Dependent Variable	R <sup>2</sup>	Int (S.E.)	Oleocanthal			Oleacein			Tyrosol		
			B (S.E.)	β	p	B (S.E.)	β	p	B (S.E.)	β	p
Δ Max Platelet Aggregation	0.487	1.19 (0.40)	-8.22 (2.09)	-42.9	0.0007	-4.30 (1.86)	-20.0	0.0298	-6.68 (2.47)	-41.2	0.0127
Δ (Oxylipins) <sup>†</sup>	0.375	1.25 (0.44)	-4.65 (2.26)	-23.9	0.0516	-7.28 (2.02)	-33.4	0.0015	-7.35 (2.69)	-44.9	0.0118

<sup>†</sup> Sum of changes in cyclooxygenase- and lipoxygenase-derived oxylipins with known roles in platelet aggregation: thromboxane B2; prostaglandin E2; 11-, 12- and 15-hydroxyicosatetraenoic acid

## Results

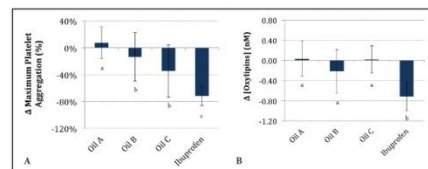


Figure 2. Effects of tested EVOOs on maximum platelet aggregation (A) and oxylipins associated with platelet function (B) in healthy male subjects. Oils B and C and Ibuprofen all decreased maximum platelet aggregation compared to Oil A, and Ibuprofen decreased oxylipin concentrations compared to all oils (*p* < 0.05, repeated measures ANOVA).

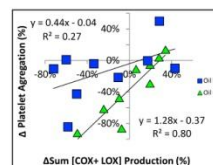


Figure 3. Correlations between inhibition of collagen-stimulated platelet aggregation and oxylipin production differ in effective oils. Platelet aggregation and oxylipin production inhibition are significantly correlated in Oil C, but not Oil B.

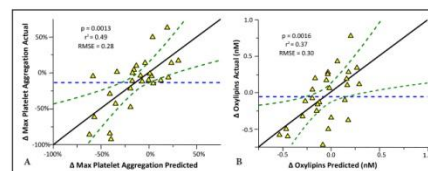


Figure 4. Oleocanthal, oleacein and tyrosol concentrations combined provide the best prediction of observed platelet aggregation (A) and oxylipin inhibition (B), respectively. As seen in Table 3, inhibition of platelet aggregation and oxylipins best correlates to the mg/kg body weight dose of oleocanthal, oleacein and tyrosol consumed by subjects in Oils A, B and C, though oleocanthal appeared to be a more potent effector of platelet aggregation while oleacein was an apparently more potent effector of oxylipin production.

## References

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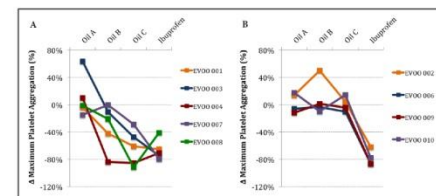


Figure 5. Subjects could be stratified into "responders" and "non-responders" based on their response to Oils B and C. Out of nine subjects sampled, five subjects ("responders") demonstrated changes in collagen-stimulated maximum platelet aggregation > -25% two hours following consumption of Oils B and C (A) whereas four subjects showed no change from baseline in maximum platelet aggregation two hours following consumption of Oils B and C (B).

## Conclusions

- The impact of EVOO consumption on collagen-stimulated platelet activity varies with changing phenolic composition, not total phenolic content.
- Oleocanthal-rich EVOOs were more potent effectors of platelet aggregation than oxylipin production, and while less potent, oleacein and tyrosol appear to contribute to this effect.
- Oleocanthal-rich EVOO effects on platelet aggregation appear to be cyclooxygenase-independent, suggesting an up-stream effect possibly associated with calcium mobilization or blockade of the physical aggregation process.
- While intra-individual variability in platelet reactivity is common, the arbitrary selection of a single postprandial sampling time and low dose of oleocanthal and oleacein contained within complex mixtures limits the power of this pilot study and may contribute to the "responder" effect.
- Future studies will consider time course, dose-response, and a greater variety of source oils to determine optimal dose, sampling time, and phenolic associations with EVOO-dependent platelet effects.
- These findings may suggest that EVOO variety may be an important factor associated with the health benefits of these products, which may ultimately have economic impacts on EVOO producing regions.

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**OLIVE OIL ART !**



# Recognition by the INDUSTRY LEADERS



● European  
○ Business  
○ Awards™

**Winner**  
2012/13



- GAEA founding member of the Extra Virgin Alliance.
- Institute dei Georgofili the oldest Agricultural University in Europe in honor of Gaea's pioneering work in quality olive oil declares Aris Kefalogiannis Academico Corrispondente – visiting Academic
- European Business Awards 2013, Gaea wins export /import category

# RECENT DEVELOPMENTS

## GAEA North America LLC

- ✓ Established March 2015, as a wholly owned subsidiary with a startup capital of **\$0,5 mil.**
- **2014** sales for our products in the US of World Fine Foods, our ex-distributor: **\$ 1,4 mil.**
- **2015** sales of our US subsidiary in **9 months** (April 15 – Dec 15): **\$ 2,7 mil.**
- **2016** sales: **\$ 5,3 mil.**
- In September 2016 **2 major listings** for Greek Olive Oils in the world's biggest retailers,  
**Walmart 4,000 stores, Kroger 2,000 stores**
- The company is currently in the process of raising capital in the US at a pre money valuation almost 8 times our original investment



# RECENT DEVELOPMENTS

## “Sitia Olive Roots”

- ✓ Started operations in June 27<sup>th</sup> 2016 after marathon discussions between the Union of Cooperatives of Sitia, the bank of Piraeus and the creditors of the Union.
- ✓ The new Company, owned by GAEA (67,5%) & the Sitia Union (32,5%), aims to save the indebted Union of Sitia, by taking over the management & facilities and promoting internationally the biggest quality Olive grove of Europe.

Sitia Union consists of:

- **10,000** tons of high quality DOP EVOO, 2 times world champion (I.O.C.)
- **8,000** farmers
- Storage capacity of **4,500** tons in state of the art stainless steel tanks, the biggest in Greece.

# GAEA, the mother Company

## Recent Developments

- ✓ **2014** A very difficult year, the worst Olive & Olive Oil Crop in Greece for the last 100 years.
- ✓ **2015** An even more difficult year:
  - Italian tree disease combined with poor Spanish crop, the worst year for the olive oil industry internationally ever.
  - Russian embargo & Tumble devaluation, our Russian subsidiary suffers.
  - Capital controls in Greece.
- ✓ **2016** A year of great recovery.
  - Export sales: 25% up
  - Return to profitability
  - Annual turnover target >15€ mil. (from 12.2 in 2015)
  - Sitia project starts in July 2016
  - Our US Subsidiary, GAEA NORTH America doubling in size



# The Operating Environment

## Greece

1. Bureaucracy (i.e. signature authentication)
2. Capital Controls

### **GREEK OLIVE OIL / OLIVE COMPANIES ARE UNCOMPETITIVE, INTERNATIONALLY**

**3. Cost of Money**, Italy & Spain 2% - Greece 7-8%

**4. Over taxation**, corporate & personal, good executives must be punished for staying in Greece!

### **BIGGEST PROBLEM**

**5. The Greek State**

# The Greek State as a major obstacle

Case Study

Kalamata Olives D.O.P?!

**1993:** The GMA registers as DOP Kalamata Olives produced in the region of Messinia.

**BUT:** Kalamata Olive is a variety, that got the name from the main port of export and not the region is being produced.

**45.000 tons of Kalamata Olives produced annually**

Thereof: **20.000 tons** Agrinion region

**12.500 tons** Sparta region

**11.000 tons** all other regions

**1.500 tons** Messinia region, **just 3,3%** of Greek production

# The Greek State as a major obstacle

- ✓ From **1993** to **2013** the DOP certification was not being used by any Greek export company.
- ✓ In 2012 Italy blocked branded Greek exports of Kalamata Olives, amongst which also GAEA's Olive Snacks that were placed in 400 Autogrill on the pretext that Greek brands were violating the DOP Certification.
- ✓ Slovenia followed the Italian example in 2015. In 2016 the Scandinavian countries started following suit.


**Solution** The solution to the problem is easy and more importantly there is consensus amongst farmers, cooperatives & industry (with the exception of Messinia).

**Remarkable** All Ministers of Agriculture since 2012, understand the problem. All of them have pledged to resolve it imminently.

**None of them has taken any action whatsoever!**

**Result** maybe in 2017 there will be no branded exports of Greek Kalamata Olives.



A photograph of a massive, curling turquoise wave crashing onto a sandy beach. A person stands in the foreground on the left, providing a sense of scale to the enormous size of the wave. The sky is overcast and grey.

**COST OF MONEY &  
OVER TAXATION**





**D.O.P.  
KALAMATA  
OLIVES**



THANK YOU



GAEA VIDEO:  
The Greek olive  
oil heritage



GAEAproducts



GAEAproducts



GAEAproducts



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