



# **Medicinal herbs and bee products in the development of natural cosmetics**

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**Thessaloniki September 2011**

# Our history



*The story begins in 1972 when Niki and Nikos Koutsianas created their first natural products combining propolis, honey, royal jelly, natural extracts and essential oils*





**1979**

Apivita was the first company that enriched soaps with active ingredients such as propolis



## Our inspiration



**... bees'**

*Offering of pollination to ecosystems  
and added value products to mankind*



**... Greek nature's**  
*rich biodiversity  
and unique plant species*



**...Hippocrates'**  
*2500 years of tradition  
and knowledge and  
holistic approach to health  
and beauty*

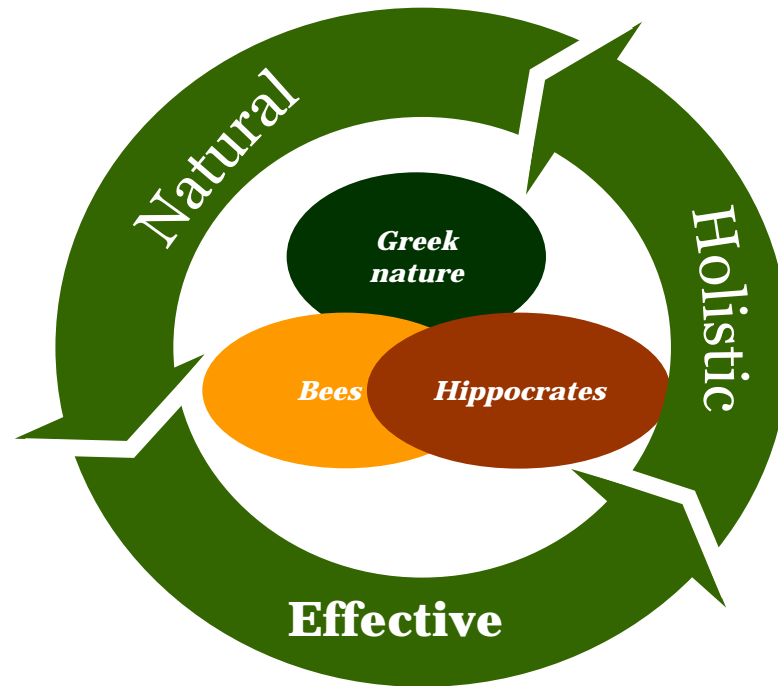
# Research and development

A leading new green product development platform



APIVITA's R&D platform transforms the Company's philosophy, inspiration and values to innovative green product formulations

Inspired by...



...leading to unique authentic and innovative green products

# Innovation

*A leading team of scientists and APIVITA's in depth knowledge of ingredients*

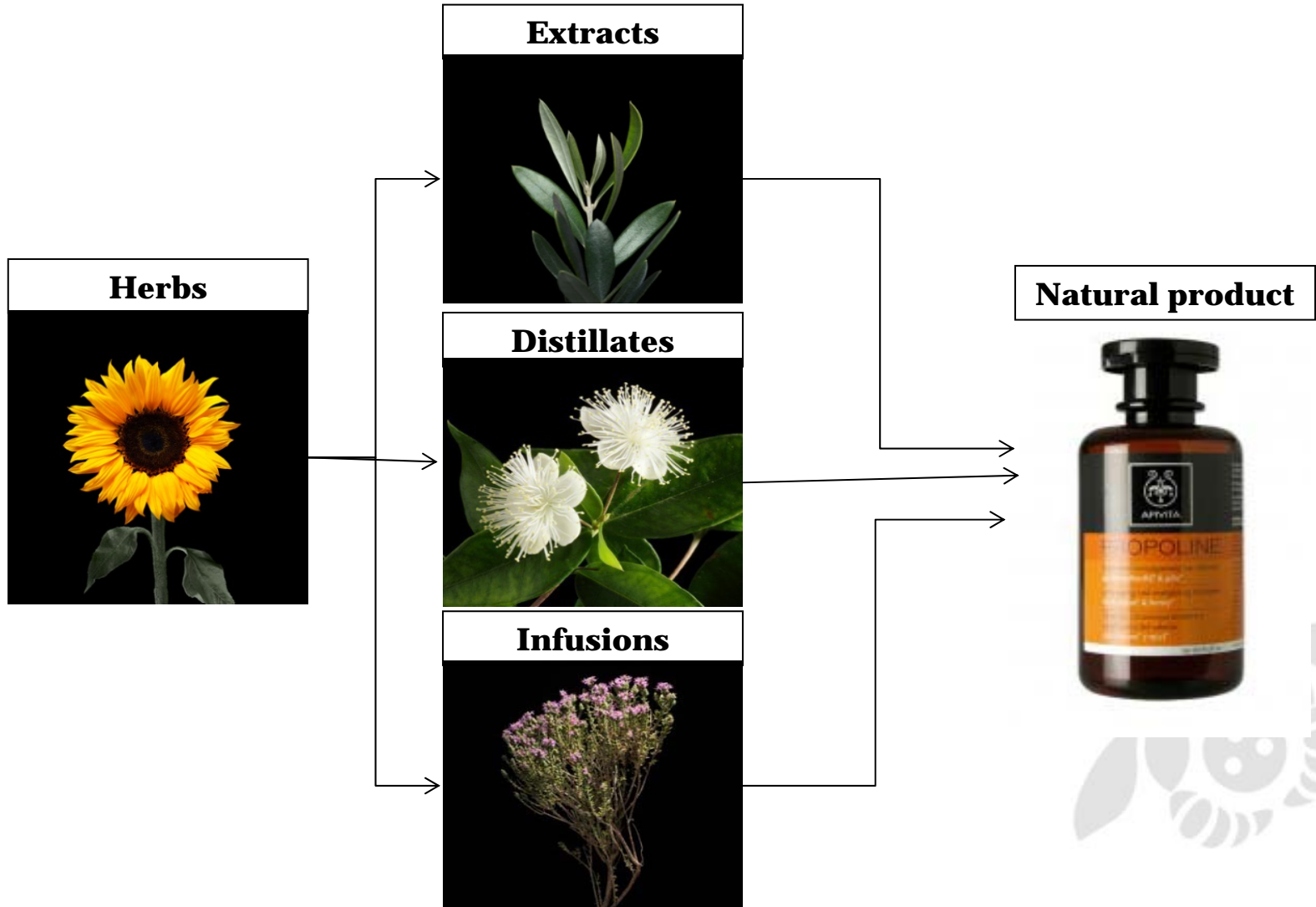


***Innovation  
lies at the  
heart of  
APIVITA***

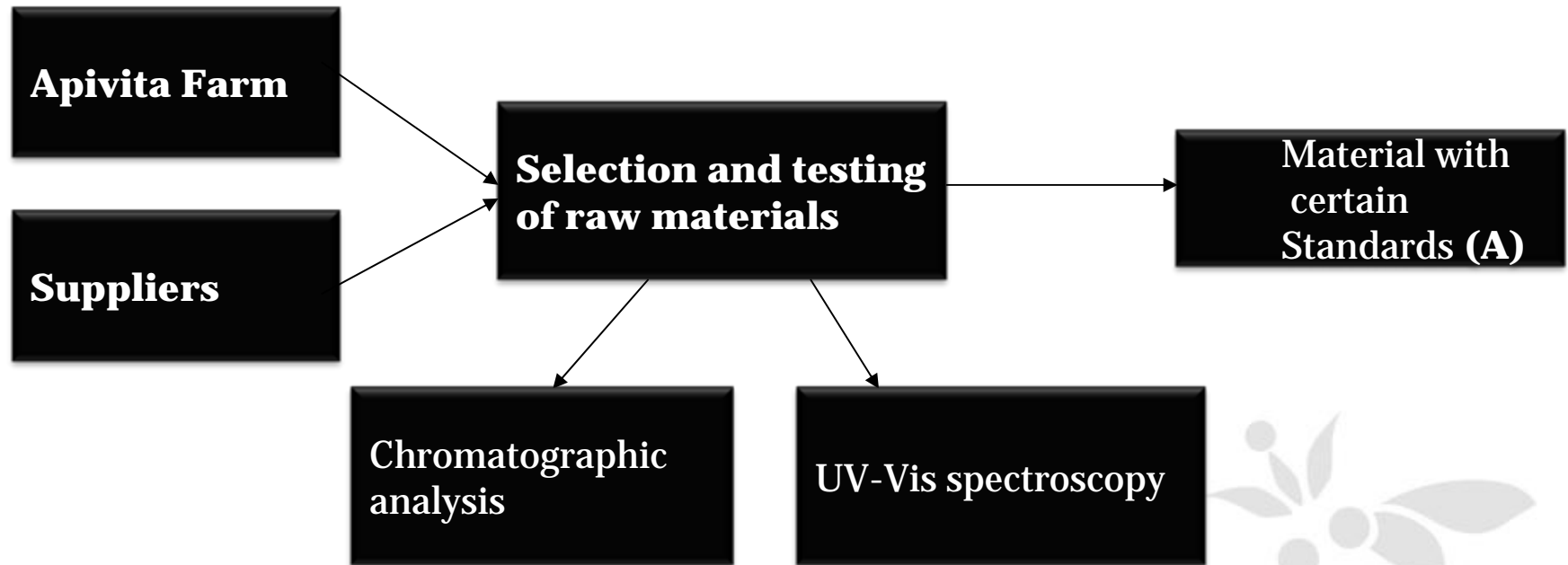
- ✓ Mr. Koutsianas, oversees the R&D processes in APIVITA, sharing with the R&D team his in depth knowledge of the natural ingredients
- ✓ 10 highly qualified scientists in the fields of chemistry, cosmetology and chemical engineering
- ✓ Creation of total standardized extracts with high biological value and concentration of active ingredients, made with organic certified plants and environmentally friendly solvents



# Innovation in practice



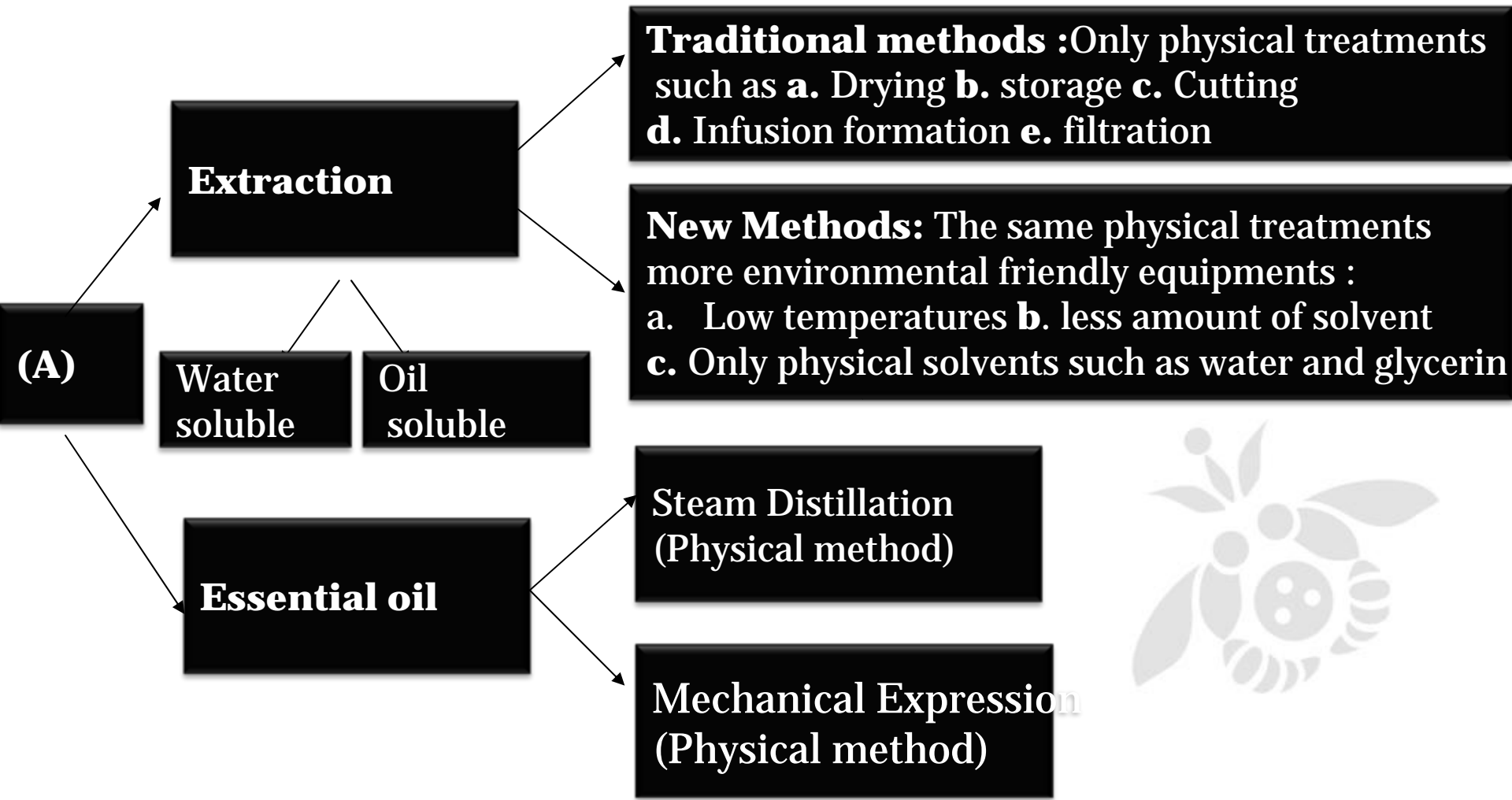
# Standard Operation Procedures for Selection, Storage, Extraction, Concentration, Bottling



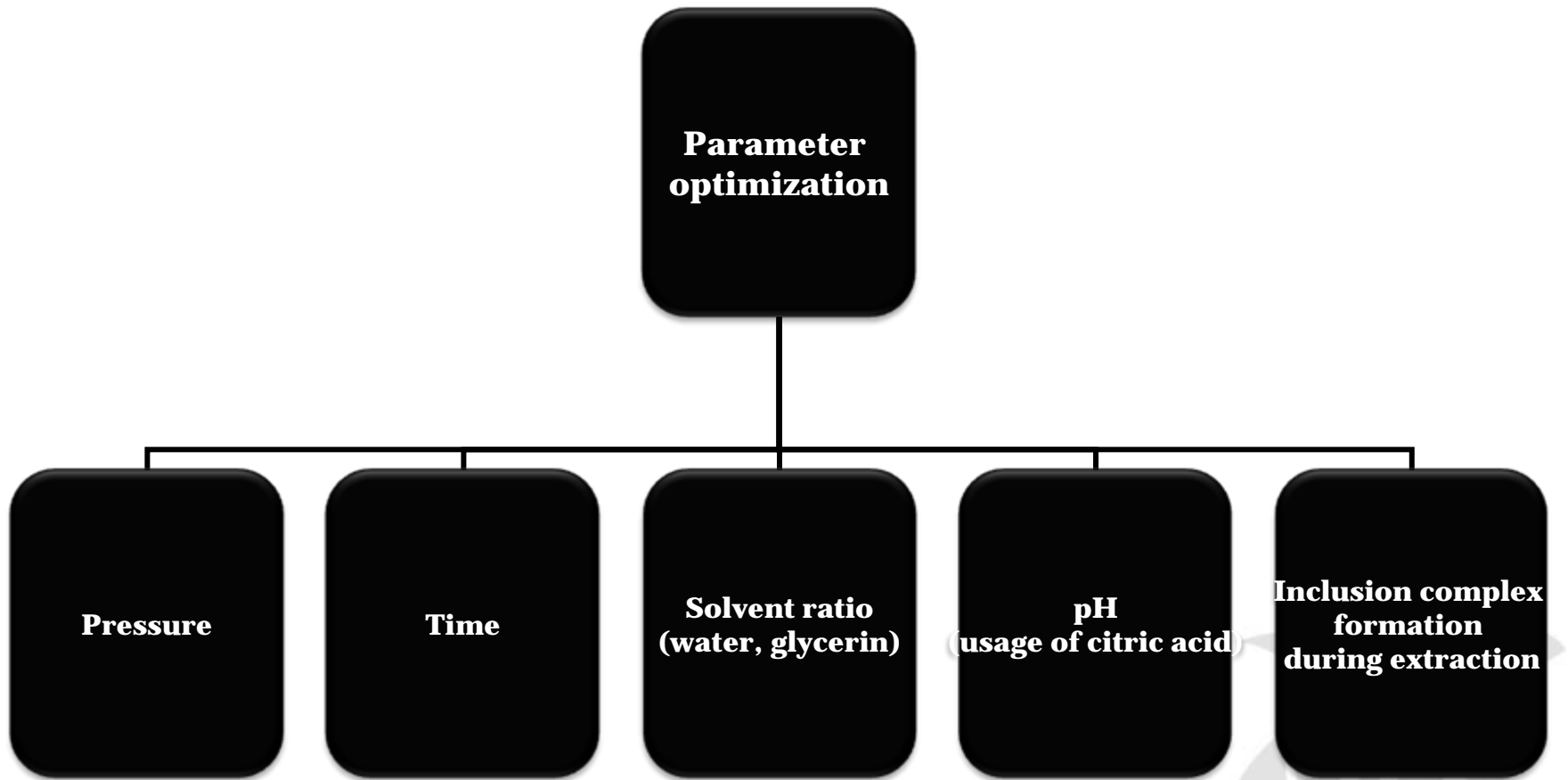
**Analysis of herbs and essential oils**  
**Analytic lab in Europe (Phytolab-Germany)-**  
**School of Pharmacy and at the Agriculture Department**  
**at the University of Athens**



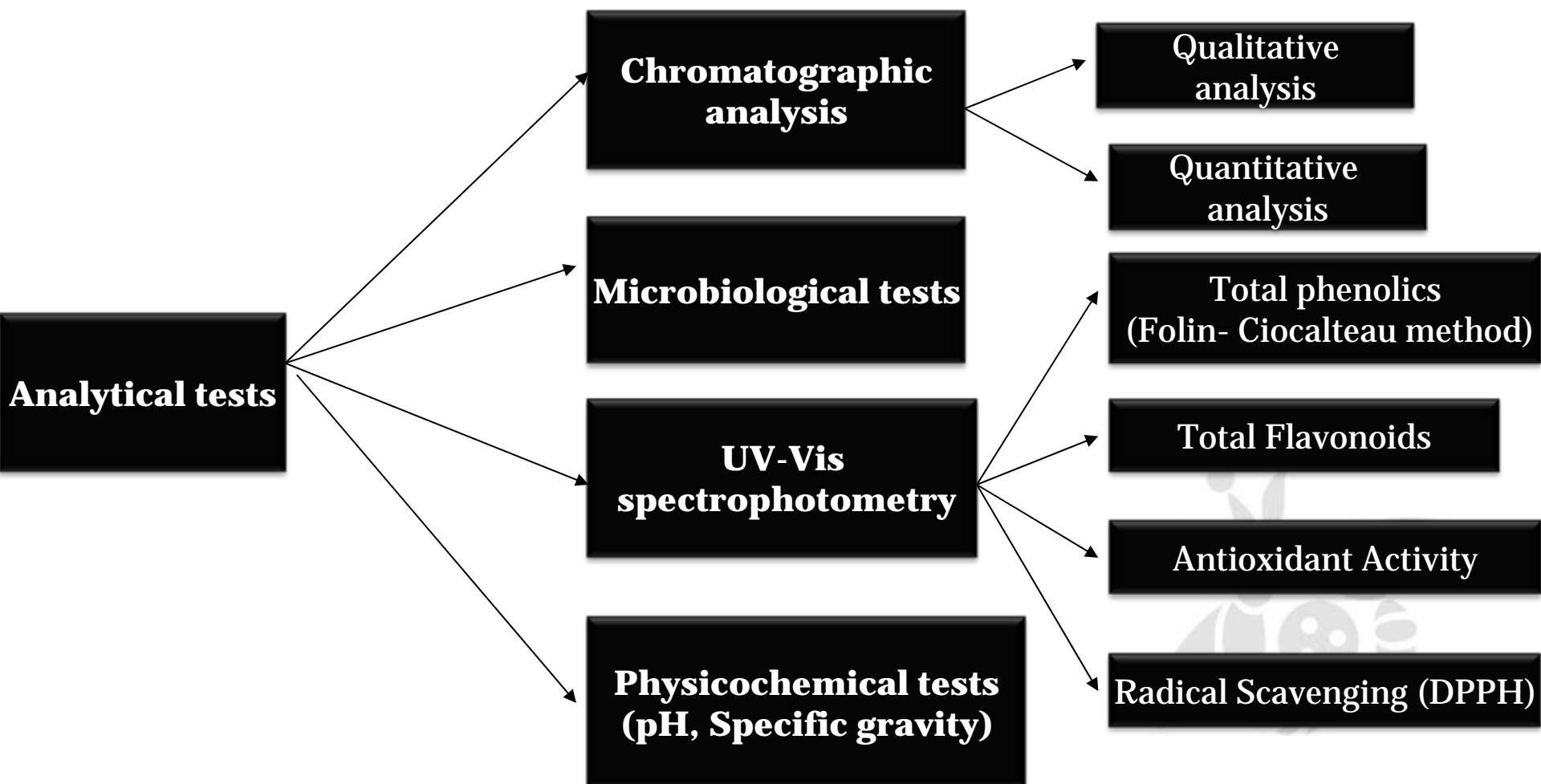
# Standard Operation Procedures for Selection, Storage, Extraction, Concentration, Bottling



# Extraction parameters



# Standard Operation Procedures for Extraction





APIVITA  
FARM

# APIVITA Farm<sup>1</sup>



- ✓ APIVITA has invested significantly in developing APIVITA Farm
- ✓ Will allow APIVITA to vertically integrate the business
- ✓ APIVITA Farm grows an extensive variety of herbs used in APIVITA's formulations
- ✓ Community support given that local farmers & agriculturists are shareholders
- ✓ Securing traceability and high quality supply for APIVITA



Source: APIVITA Natural Products S.A.

Notes:

1) APIVITA maintains a minority stake of 20% at APIVITA Farm

**2009**

**10 hectares 5 herbs at Fthiotida**

**1 hectare 8 herbs at Arcadia**

**100 beehives at Arcadia**

**Wild crafting of herbs on Mt. Olympus & Arcadia**

**1<sup>st</sup> production (2010)**

**Lavender Organic essential oil**

**Chamomile Organic essential oil**



APIVITA  
FARM



**2010-2011**

**Establishment of drying and distillation facilities**

**15 hectares - 10 herbs at Phtiotida**

**2 hectares - 10 herbs at Arcadia**

**1 hectare - 4 herbs on Mt. Olympus**

**200 beehives at Arcadia & Phtiotida**

**All 18 hectares organic certified farms**

**Harvest and process of 5 herbs in order to use for**

**Production of organic extracts and organic essential oils**

**Used as raw materials in the APIVITA product formulations**

**Harvest of honey, propolis and royal jelly in order to use**

**as raw materials in the APIVITA product formulations**



**A P I V I T A  
F A R M**





A P I V I T A  
F A R M



- Matricaria recutita (Cultivation Domokos)**
- Lavandula angustifolia (Cultivation Domokos)**
- Rosmarinus officinalis flower (Cultivation Arkadia)**
- Calendula officinalis (Cultivation Arkadia)**
- Thymus vulgaris (Cultivation Domokos)**
- Salvia fruticosa flower (2011 Cultivation Arkadia - Domokos)**
- Melissa officinalis leaf (Cultivation Domokos-Arkadia)**
- Achillea millefolium (Wild Crafted Mt. Olympus)**
- Hypericum perforatum (wild Crafted Mt. Olympus)**



Organic farming of medicinal and aromatic plants



A P I V I T A  
F A R M



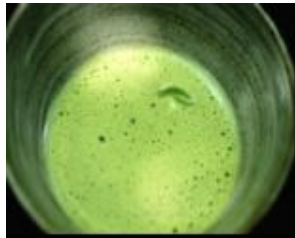
- Rosa damascena flower (cultivation Domokos)**
- Sambucus nigra flower (wild harvest Arkadia)**
- Origanum dictamnus (Cultivation Crete)**
- Sideritis scardica whole (Cultivation Domokos)**
- Ocimum basilicum whole (Cultivation Domokos)**
- Echinacea purpurea (Cultivation Agrinio-Arkadia)**
- Prunella vulgaris ( 2011 cultivation Domokos)**
- Rosa canina fruit (wild harvest Arkadia)**
- Salvia Sclarea (cultivation Arkadia)**



Organic farming of medicinal and aromatic plants

# Innovation in practice

*Replacing water with herbs infusions to enhance effectiveness*



**Green tea water**



**Rosemary water**



**Calendula (marigold) water**



**Hamamelis (or witch hazel) water**



**Chamomile water**

**Products**

**Face**



**Hair**



**Kids**



**Body**



**Baby**



**Properties**

**Antioxidant anti-aging action**

**Toning action**

**Calming and soothing action**

**Antiseptic and soothing action**

**Anti-irritant and soothing action**



# Beekeeping products

HONEY

BEE POLLEN

ROYAL JELLY

PROPOLIS

Bee venom

BEESWAX







# Propolis

**Propolis** is a strongly adhesive, resinous substance, collected by honeybees from buds and leaves of trees and plants, mixed with pollen as

**Propolis** not only topically applied, but it contains ingredients that influence the biological function of the skin. Propolis improves appearance, by delivering nutrients necessary for healthy skin, as well as enzymes secreted by bees



# Propolis: “A natural healing from the hive”



**The following properties have been attributed to propolis in research carried out over the last 30 years:**

- **Anti-fungal**
- **Antioxidant**
- **Antiseptic**
- **Analgesic**
- **Immune-stimulant effects**



# Innovation in practice

## *Propolis & Royal Jelly encapsulation*



***Propolis constitutes one of the major ingredients APIVITA uses in its products***



Methods of encapsulation are applied to bee products in order to increase stability, permeability and bioavailability of active components.

- ✓ **APIVITA PATENT**  
APIVITA's innovation in terms of the ingredient of propolis referred to as "propolis encapsulation", is a way of maintaining propolis properties in product formulations creating a more effective delivery system
- ✓ **Greek Royal Jelly encapsulation in liposomes** offers new and enhanced properties for antiageing



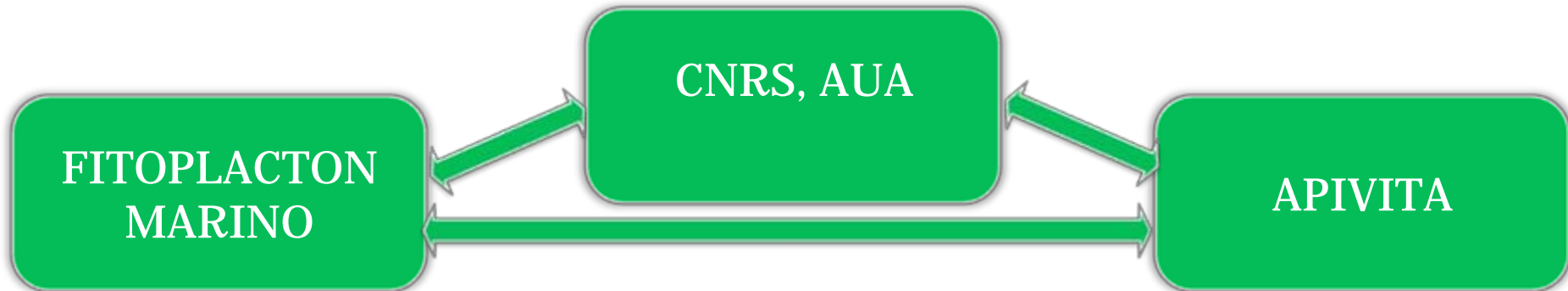
Propolis' properties vary from its anti-inflammatory, antimicrobial and antibacterial effects, to strengthen the immune system support

## Innovation European Programmes



**Title:** FP7- People Exploitation of microalgae diversity for the development of novel high added-value cosmeceuticals

**Partners:**



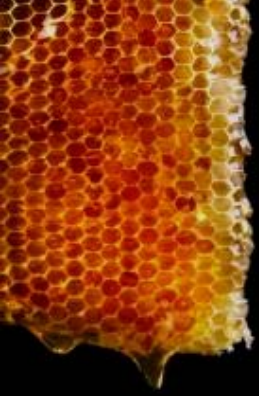
## Submitted Programmes

**Title:** Exploitation of plant stem cells for the development of novel high added-value cosmeceuticals and nutraceuticals

**Partners:** APIVITA, HELP, Agricultural University of Athens (AUA), Institute of Agrobiotechnology, (INA) , University of the Aegean, (UOA)

**Title:** Development of anti-ageing cosmeceuticals using bioactive innovative ingredients: synthetic peptides, plant ingredients extracted with green chemistry principles and encapsulation.

**Partners:** APIVITA, Pharmaten, University of Patras, National and Kapodistrian university of Athens, Harokopion University



***Thank you***