

# **MEditerranean bioDiversity as a tool for the sustainable development of the small ruminant sector: from Traditional knowledge to Innovation**

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Hellenic Agricultural Organisation*

# Consortium

- GREECE - Hellenic Agricultural Organisation – Direction of Agricultural Research (NAGREF)
  - Veterinary Research Institute of Thessaloniki  
Ch. Ligda, E. Sossidou
  - Agricultural Economics and Policy Research Institute  
I. Tzouramani
- FRANCE - Institut National de la Recherche Agronomique
  - SAD LRDE, Corte  
A. Lauvie, F. Casabianca
- CYPRUS - Agricultural Research Institute, Lefkosia  
G. Hadjipavlou
- MOROCCO -Institut Agronomique et Vétérinaire Hassan II, Rabat  
A. Araba

# Aims and objectives

- Sustainability of pastoral and rangeland production systems (sheep and goat production)
- The following aspects will be investigated:
  - Components of the production systems
    - Assessment of the sustainability (environment, economical, social)
  - Role of local authorities / organisation at territorial level
  - Distribution of products, supply chain, trends of the market
  - Positive synergies in breeds-products interactions
    - review existing strategies
    - supporting the development of new ones

# State of Art

- Rangeland and pastoral systems → the traditional way of farming
- Knowledge systems and know-how developed gradually in interaction with the environment
- These systems are valuable under the new demands
  - protection of the environment and biodiversity
  - consumer demands on safe and quality products (in affordable prices)
- The necessary evolution of these systems → an overall adaptation of their components
  - to provide sufficient income to the farmer in appreciable working and living conditions
- Differentiation of the products, valorization of their specificities



Corse, FR



Epirus, GR



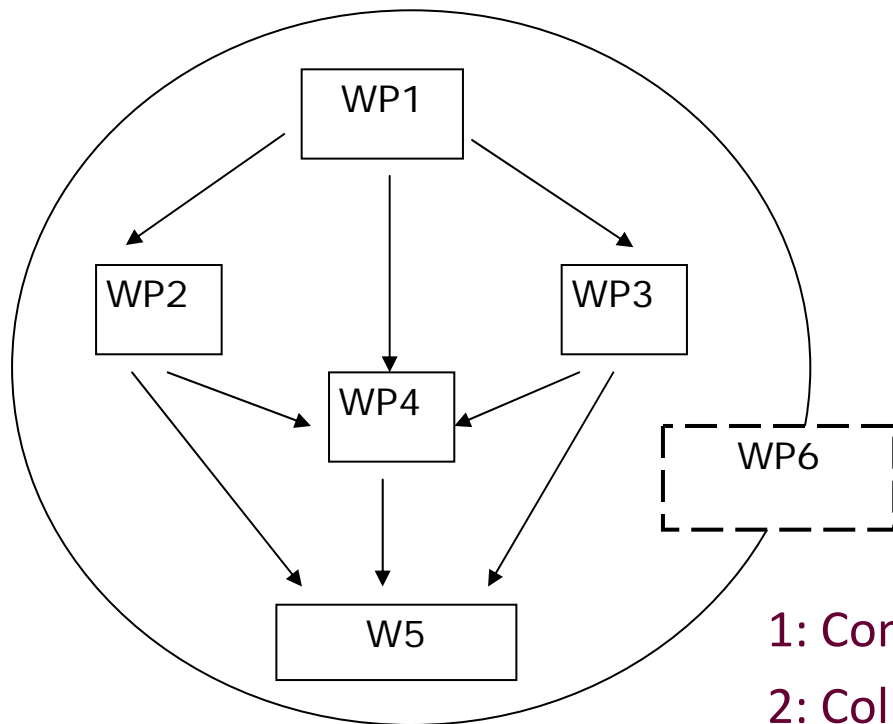


## Cyprus



## Morocco

# Workpackages



- 1: Components of the Production System
- 2: Collective organisation at territorial level
- 3: Supply chain and Market analysis
- 4: Assessment of the sustainability of the system
- 5: Mediterranean Platform
- 6: Project Coordination and Management

# Timetable

	Year 1												Year 2												Year 3					
WP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1			D1							D2			D3																	
2												D1					D2			D3										
3												D1										D2								
4																								D1			D2			
5					D1																								D2	
6		M1												M2					D3							M4		M5		D6



# Finances

Partner	Personnel costs, temporary staff except PHD	Personnel costs, PHD	Consumables	Travel & subsistence	Other costs (to be specified in A10)	Overhead	Total costs
1 NAGREF. Greece	1.5	0	2.9	23.4	4.2	0	32.000
2. INRA – SAD Corse	12	0	4	41.5	3	4.235	64.735
3. ARI – Cyprus	0	0	1.5	13.1	2.4	1.2	18.2
4. IAV - Morocco	2	4.5	4.5	28.84	9.5	14.802	64.142
<b>Total</b>	<b>15.5</b>	<b>4.5</b>	<b>14.2</b>	<b>106.78</b>	<b>20.6</b>	<b>22.669</b>	<b>184.249</b>

# Contribution

- Link livestock production with the environment, the social and economical sciences
- Positive changes
  - in the efficiency and resilience of the production systems,
  - the competitiveness of the products and their position in the market
- Advising tools for the implementation of valorisation projects, breeding schemes and commercialisation strategies, by conciliating the objectives of various local stakeholders

# DoMEsTic Aims and Prospects

Which actions are needed to ensure competitiveness and sustainability?

## For sheep and goats:

- Breeding healthy, disease resistant animals
  - Assessing genetic management
- Conservation of local breeds /genetic resources  
(well-adapted to climatic conditions/changes)
  - Recording the attributes of various farming systems
  - Evaluate traditional knowledge and farmers' ability to respond to change

# DoMEsTic Aims and Prospects

Which actions are needed to ensure competitiveness and sustainability?

## For sheep and goat products:

- Higher on-farm processing of milk products
- Added value of sheep and goat products

## For sheep and goat farmers:

- Incentives for young individuals to continue family business
- Guidelines for supporting new sheep and goat farmers
- Enhanced education, knowledge transfer and extension services



- Current status of implementation

## **WP1. Components of the production system**

- Interviews of farmers on the farming methods, specific uses, products, links to the region etc
- Review the traditional knowledge related to the production systems, developed in the specific environment and resources

# WP1

- Design of questionnaire
- Finalised
- Translated in local languages
- Pilot interviews – Sampling method in each region
- Start collection of data

# Questionnaire

## **1. FARM'S GENERAL DATA**

Profession, cropping system

## **2. LIVESTOCK COMPOSITION**

## **3. FEEDING SYSTEM**

## **4. LABOUR**

## **5. BREEDING – REPRODUCTION**

## **6. HEALTH MANAGEMENT**

## **7. PERFORMANCE**

## **8. PRODUCTS**



## WP2. Collective organisation at territorial level

- The territorial features will be analysed
  - Interaction between territory and production process
  - Involvement of stakeholders on the territory
  - Role of sheep and goat production systems in the local development

# WP2

- Who are the **main actors** and what roles do they play? [responsibilities/benefits]
- What are the **main problems** for each of the actors?
- What is **the environment** in which the actors function?
- Who are considered as the **prime movers** among the actors?
- What are their **relationships** with each other? Are there any conflicts?

# WP2

## Characterization of the collective organization

<b>Breed</b>	<b>Number of animals</b>
<b>In the area</b>	<b>Elsewhere</b>
<b>Official breeding scheme</b>	
<b>Yes</b>	<b>No</b>
<b>Structure in charge</b>	<b>Aim to build one?</b>
<b>Date of establishment</b>	<b>Stakeholders involved</b>
<b>Main steps in the history of the scheme</b>	
<b>Selection criteria</b>	
<b>Other bodies involved as partners / their role</b>	

# WP2

## Characterization of the collective organization

<b>Breed</b>	
<b>Product / quantity</b>	
<b>Collective brand or GI</b>	<b>Official structure in charge of the management</b>
	<b>Main steps in the history of the valorization</b>
	<b>Main specification criteria</b>
	<b>Other body involved as partner / their role</b>
<b>For the products without label, there is aim to build one ?</b>	



## **WP3. Supply chain and Market analysis**

- Identify and characterise the main stakeholders involved in the production and valorisation of the products
- Products with commercial ground, adapted to the market needs and demands
- Maintaining their specificity, originality and authenticity

## Traditional Breed Production Systems and Supply Chains

- **Product specificity**
  - History and cultural characteristics
  - Conditions related to soil, climate, and other physical characteristics
  - Links between the product and the specific geographical area
- **Market**
  - Market characterisation
  - Description of the consumption and marketing system

## Traditional Breed Production Systems and Supply Chains

- **Consumer demand**
  - Trends and drivers
  - Perceived quality by consumers
  - Perceived quality by other actors in the supply chain
- **The institutional environment**
  - History/Path dependencies
  - Legal and regulatory environment (regional, national, EU)
  - Relevant policies (regional, national, EU) and their impact

## **WP4. Assessment of the sustainability of the system**

- Identify explicit and implicit practices and rules implemented by the farmers and all stakeholders in the studied cases
- Interactions between the strategies for product valorisation and strategies for the genetic management of the breed

## **WP5. Mediterranean Platform consolidating traditional knowledge and innovation**

- Information tool of the project
- [www.arim-domestic.net](http://www.arim-domestic.net)
- Main dissemination tool of the Project deliverables
- Communication Platform consolidating traditional knowledge for innovative activities
- To be extended further (after finalisation of the project) to all counties of the Mediterranean region



# DoMEsTic

Traditional Knowledge to Innovation



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**Mediterranean biodiversity as a tool for the sustainable development of the small ruminant sector: from traditional knowledge to innovation**



In the Mediterranean region, rangeland and pastoral systems considered as the traditional way of farming contain elements that can be proved of high value under the new conditions, related with the need for the protection of the environment and biodiversity and with consumer demands on safe and quality products. These production systems utilizing local genetic resources adapted to the production environment could increase their profitability through the modernization of the production systems and by enhancing the means of commercialization of the products.

The project aims to investigate the factors that influence the sustainability of pastoral and rangeland production systems in the participating countries, focusing on sheep and goat production, and examine the adaptation strategies to the socio-economic and environmental challenges. Towards this aim, the following aspects will



#### Συντονιστής του έργου:

**Ελλάδα**  
Διεύθυνση Αγροτικής Έρευνας – ΕΛΓΟ  
(πρώην ΕΘΙΑΓΕ)  
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Περισσότερες πληροφορίες στην ιστοσελίδα του  
έργου: [www.arim-domestic.net](http://www.arim-domestic.net)

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*Mediterranean biodiversity as a tool for the  
sustainable development of the small  
ruminant sector: from traditional knowledge  
to innovation*



Η Μεσογειακή βιοποικιλότητα ως μέσο για τη  
βιώσιμη ανάπτυξη του τομέα της  
προβατοτροφίας και αιγοτροφίας:  
συνδέοντας την παραδοσιακή γνώση με την  
καινοτομία



Ο στόχος του  
προγράμματος  
ARIMNet (Agricultural  
Research in the  
Mediterranean Region)  
είναι η ενίσχυση της επιστημονικής  
συνεργασίας μεταξύ χωρών της Μεσογείου και  
η δημιουργία μιας ερευνητικής κοινότητας με  
το συντονισμό των εθνικών προγραμμάτων  
αγροτικής έρευνας.

Οι χώρες της Μεσογείου παρουσιάζουν κοινά  
χαρακτηριστικά, τα οποία είναι σημαντικά για  
τη γεωργία και την παραγωγή τροφίμων, όπως  
το κλίμα, η βλάστηση και η μοναδική  
βιοποικιλότητα. Το ARIMNet επιδιώκει τη  
συνεργασία ερευνητικών ομάδων των χωρών  
της Μεσογείου για την αντιμετώπιση των  
κοινών προκλήσεων, όπως η βιώσιμη  
ανάπτυξη, η διαχείριση των φυσικών πόρων  
και η κλιματική αλλαγή.

Στο πλαίσιο αυτό υλοποιείται το ερευνητικό  
έργο "Mediterranean biodiversity as a tool for  
the sustainable development of the small  
ruminant sector: from traditional knowledge  
to innovation", "DoMEsTic".

Κύριος σκοπός του έργου είναι η διερεύνηση  
των παραγόντων που επηρεάζουν τη  
βιωσιμότητα των ποιμενικών και εκτατικών  
παραγωγικών συστημάτων, προβάτων και  
αγνών στους άξονες: περιβάλλον, οικονομία  
και κοινωνία.

Για το σκοπό αυτό θα διερευνηθούν: 1) οι  
διαφορετικές συνισταμένες του παραγωγικού  
συστήματος, 2) η συλλογική οργάνωση σε

## Brochure informative on the project for the local stakeholders

τοπικό επίπεδο, και 3) η εφοδιαστική αλυσίδα,  
οι δυνατότητες προώθησης των προϊόντων και  
οι τάσεις της αγοράς.

Ο σχεδιασμός του προγράμματος θα οδηγήσει  
στον προσδιορισμό πιθανών θετικών  
συνεργιών μεταξύ φυλών – προϊόντων. Στόχος  
είναι η ενίσχυση της αλληλεπίδρασης μεταξύ  
των τοπικών φυλών αγροτικών ζώων και  
προϊόντων ποιότητας, εξετάζοντας τις  
υπάρχουσες στρατηγικές και ενισχύοντας την  
ανάπτυξη νέων.



#### Πακέτα Εργασίας

**WP1. Components of the Production System**  
(Συνισταμένες του παραγωγικού συστήματος)

**WP2. Collective organisation at territorial level**  
(Συλλογική οργάνωση σε επίπεδο περιοχής)

**WP3. Supply chain and Market analysis**  
(Εφοδιαστική αλυσίδα και ανάλυση αγοράς)

**WP4. Assessment of the sustainability of the  
system** (Προσδιορισμός της βιωσιμότητας του  
συστήματος)

**WPs. Mediterranean Platform consolidating  
traditional knowledge and innovation**  
(Μεσογειακή πλατφόρμα με στόχο τη σύνδεση  
της παραδοσιακής γνώσης με την καινοτομία)



Από την τεχνική επίσκεψη με τους εταίρους  
του έργου και τους συνεργάτες στην Ήπειρο,  
κατά την 1<sup>η</sup> Συνάντηση Εργασίας του έργου  
(Ιούλιος 2005)



1<sup>η</sup> Τεχνική Συνάντηση Εργασίας του DoMEsTic,  
Ινστ. Τεχνολογίας Γάλακτος, Ιωάννινα (Ιούλιος  
2005)

- Partner in the Regional Workshop on  
«Characterization and Value Addition to local  
Breeds and their Products » - North Africa and  
Near-East

*19-21 November 2012*

*IAV Hassan II, Rabat, Morocco*



# Kick off meeting

Dairy Research Institute, Ioannina, Greece

4-5 July 2012

- Participants:
  - Project Partners
  - Local Stakeholders
    - Association of Pastoral Farmers of Epirus
    - Union of Agricultural Cooperatives of Ioannina
    - Genetic Improvement Centre of Ioannina
    - Hellenic Organisation of Milk and Meat
    - Dairy School of Ioannina
    - Farmers

# Field visit

Sheep flock in the summer pastures  
in Peristeri mountain (Epirus)  
Kalarritiko sheep breed



# Next Steps

- Continue field work
- Report on production system
- Synthesis of case studies
- Map of collective organisation at territorial level
- Map of supply chain

# Next Meetings

- 2<sup>nd</sup> Meeting - Corsica – May 2013
- 3<sup>rd</sup> Meeting – Cyprus - May 2014
- Final Workshop – Morocco





# DoMEsTic

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Thank you!