ARIMNet2 Young Researchers Seminar

“How to better involve end-users throughout the research process to foster innovation-driven research for a sustainable Mediterranean agriculture at the farm and local scales.”

30 May - 3 June 2016, Institut Agronomique Méditerranéen de Montpellier (IAML), France

LIFE-CYCLE SUSTAINABILITY ASSESSMENT OF MEDITERRANEAN AGRI-FOOD SYSTEMS

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CONTEXT & CHALLENGES

Context

- Achieving sustainability in production and distribution of food is a global priority
- Dietary choices and consumption patterns are the drivers of production --> “Sustainable Diets”

Challenges

- Strengthening sustainable production and distribution of agri-food products
- Stimulating demand for sustainable agri-food
- Developing a robust methodology to assess the life-cycle sustainability of agri-food products
RESEARCH QUESTIONS & OBJECTIVES

Research questions

 How to assess the sustainability of Mediterranean agri-food products?
 Are the agri-food products from Mediterranean diet sustainable?
 How the sustainability of Mediterranean agri-food products can be improved?
 How sustainability can be used to foster Mediterranean agribusiness?

Objectives

 To assess the life-cycle environmental and socio-cultural impacts of Mediterranean agri-food
 To assess the economic added-value along agri-food supply chains
 To quantify the nutrient quality of Mediterranean agri-food products and meals
 To promote ecoefficiency and circular economy in order to reduce impacts and increase the added value of products
 To develop metrics to represent the relationships between impacts and economic and nutritional added-value of products
 To support producers improving the communication of sustainability of their products

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METHODOLOGY

Conceptual framework & Involvement of stakeholders

T1. Environmental life-cycle assessment
T2. Social life-cycle assessment
T3. Food security and nutrient quality
T4. Metrics to combine nutritional and economic added-value with environmental and social impacts
T5. Multi-criteria decision analysis

Stakeholders (farmers, nutritionists, retailers, consumers)
EXPECTED RESULTS / IMPACT
(INNOVATION)

Promote and communicate ecoefficiency

- Circular economy strategies for Mediterranean agriculture
- “Closing the loop” of product life-cycles: recycling and re-use
- Eco-design
- Water footprint
- Carbon footprint
- Environmental Product Declaration (EPD)/Product Environmental Footprint (PEF)

Communicate sustainability

- Propose a sustainability label for Mediterranean food
  (environmental + social + economic + nutritional added-value)
PROPOSED PARTNERSHIP

Partner 1: University of Coimbra, Portugal
- Environmental LCA and MCDA

Partner 2: to be defined
- Socio-cultural impacts and social LCA

Partner 3: to be defined
- Economic added value

Partner 4: to be defined
- Food security and nutrient quality

Partner 5-7: Producers, cooperatives and producers associations
- Olive oil
- Fruits and vegetables (e.g. pomegranate, watercress)
- Nuts and dried fruits (e.g. chestnut, almond)
- Soft fruits (e.g. strawberries, raspberry)
- Wine
Thank you for your attention!