Issues of research and partnership: what are the priorities for integrating research on agricultural and environmental questions between European, Mediterranean and African collaborating teams?

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Introduction

- Actually the most of Mediterranean and African countries put the agriculture sector forward for job creation, stabilizing the rural environment and curbing the rural exodus.

- Since 2008 the world food crisis has prompted several countries to review the positioning of agricultural policy.

- Agricultural development strategies have placed training, research and technology transfer at a high level.

- Important reforms have been made in governance with the organization of the private sector and public-private partnership.

- Cooperation and partnership at regional and international level, mainly in training, research and innovation.

- South-South cooperation and North-South cooperation are translated into triangular cooperation.
1. History of EU-Mediterranean Partner Countries (MPC) Science & Technology collaboration
Euro-Mediterranean Partnership: S&T policy framework

REGIONAL LEVEL

- 1995: Barcelona process (MOCO)
- 2002: FP6 Opening ERA to the world
- 2004: Neighborhood Policy
- 2007: FP7 Green paper on ERA special emphasis on neighboring countries
- 2007: First EUROMED, Cairo
- 2008: Union for the MED
2. EU S&T Supporting programs: FP’s-H2020
EU supporting program: FP’s-H2020

MPC participation to EU Framework Program (FP 5-6-7)

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<thead>
<tr>
<th>Country</th>
<th>FP7</th>
<th>FP6</th>
<th>FP5</th>
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Sources:
FP7 EC statistics (DG Research May 2014)
FP6, FP5: Overview of MPC participation in FP5 and FP6 MIRA – WP4 SCREENING CONFERENCE CAIRO, APRIL 16-17 2008
EU programs: a bridge between MPC/African researchers

AFRICA call (FP7) in 2010

- Published: 30-07-2009
- Budget: €63,000,000
- Topics: Health, Food, Agriculture and Fisheries, Biotechnology, Environment (including Climate Change)
- Objective: The aim of this Call is to address some of the Science & Technology objectives of the "Africa - EU Strategic Partnership" putting emphasis on 'Water and Food Security' and 'Better Health for Africa'.
Examples of funded projects (1)

**DEWFORA**: Early warning and forecasting systems to predict climate related drought vulnerability and risks in Africa

**18 Partners**: UNESCO, ACFMRWF - United Kingdom, JRC – Belgium, 2 Germany, 2 Spain, Portugal, IAM, Netherlands, Egypt, Sudan, Kenya, Mozambique, 2 South Africa, Morocco, Botswana

**Results**:  
- developing a risk-based approach for establishing and mapping drought vulnerability and hazards  
- developing high resolution predictions of future climate scenarios  
- drafting a framework for the improvement of early drought warning systems  
- Youtube movie: on "Futuris" on euronews
Examples of funded projects (2)

**Biowaste 4Sp**: Effective technological use of a selected list of biowaste of significant importance and from both the industrial and agricultural sector in five African countries: Morocco, Egypt, Ghana, South Africa

**16 Partners**: 2 Denmark, 2 Sweden, Turkey, 2 Malaysia, Ghana, South Africa, Egypt, Italy, 2 Morocco, South Africa, Kenya, WAITRO

**Results**:  
- developed a feedstock catalogue that has information on biowastes and bioresidues found in large quantities in the partner countries. They used a total of 49 biomass samples  
- developed a generic biorefinery process and was able to retrieve up to 80% of sugars from biomass feedstock
Examples of funded projects (3)

**OH Nextgen project**: Training of the One Health Next Scientific Generation in the Sahel and Maghreb

**9 Partners**: 2 Belgium, Switzerland, United Kingdom, Sweden, South Africa, Morocco, Senegal, Ghana

**Results**:
- developing the curriculum for a web-based modular training course on neglected diseases like rabies
- course content, advocacy, and monitoring and evaluation have been developed, and 10 course modules were defined.
- OH-NEXTGEN trained a total of 29 francophone and 15 anglophone scientists
- development of Master
3. UE-MPC joint calls: ERANET

- ARIMNET
- ERANETMED
A new regional dynamic: ARIMNET 1 & 2 projects

Specific goal: coordination of agricultural research in the EU-MED countries through publication of Joint Call for Transnational Research Proposals in Agriculture

Euro-MED Partners: (ARIMNET1 : 13 ; ARIMNET2 : 26)

Call Secretariat: IAV and INRA France

| Call 2011 | 80 proposals: 10 selected |
| Call 2014 | 180 proposals: 10 selected |
| Call 2016 | 120 proposals: 11 selected |

NEXT CALL FOR YOUNG RESEARCHERS
A new regional dynamic: ERANETMED

**Specific goal:** supporting transnational research through renewable energies and energy efficiency, water resources management, ENERGY-WATER nexus

**Euro-MED consortiums:** 16 partners

**Call 2014:** 21 selected projects

**Call 2017:** pre announcement

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<tr>
<th>Country</th>
<th>Funding Partner</th>
<th>Contribution up to (in k€)</th>
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<td>DEMETER</td>
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<td>Turkey</td>
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4. Partnership for Research Innovation Mediterranean Area (PRIMA) (art.185 Treaty of Functioning of the EU)
PRIMA Partners: 19 Euro-Mediterranean Countries, including 11 EU States (Croatia, Cyprus, France, Germany, Greece, Italy, Luxembourg, Malta, Portugal, Slovenia and Spain) and 8 non-EU countries (Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Tunisia and Turkey)

Objective: build research and innovation capacities and to develop knowledge and common innovative solutions for water management and agro-food systems on both shores of the Mediterranean, inspired by principles of co-ownership, mutual interest and shared benefits across the Mediterranean basin.
Common challenges identified by PRIMA

- Climate change:
  - 2-4°C increase by 2050
  - 20-30% decrease rainfall by 2050

- Population:
  Expectation of growth by 2020, 520 million
Common challenges identified by PRIMA

- **Water scarcity and overexploitation** of natural resources, water demand is higher, water agricultural demand more than 70%

**Sustainable Agriculture**

Production in Agriculture in MPCs is typically between 10% and 20% of GDP compared to 3% in EU.

20-30% employment in MPC comparing to 4% in EU
Common challenges identified by PRIMA

Agro-biodiversity loss

Mediterranean agro-food value chains

Reinforcing Mediterranean lifestyle: diet, physical activity, socio-cultural, overweight 74/86% for women and 69/77% for men
PRIMA thematic areas

Cross cutting themes and activities:

- Soil Sustainability
- Food Security
- Digital Revolution
- Socio-economic Research
- And stakeholders involvement
- Capacity building
Conclusion

- COP21 and COP22 were successful meetings of history and hope. COP21 devoted a significant part to agricultural issues and made it possible to conclude a universal agreement to this effect. This historic agreement invites us to act quickly, well and collectively.

- In the wake of COP21, COP22 also focused on issues related to food security and adaptation to climate change. It has positioned Africa at the heart of the debate, taking care to devote the role of agriculture to poverty reduction as a key pillar of the solutions to the fight against global warming and as a major component to the construction of peace.
Thank you for attention