

MED7 FINAL SYNTHESIS DOCUMENT RECOMMENDATION

BACKGROUND

The VII Euro-Mediterranean Conference of Ministers of Foreign Affairs held in Luxembourg on 30-31 May 2005 (“Barcelona VII”) allowed Ministers to assess what has been achieved so far and to discuss general guidelines and actions for the future of the Euro-Mediterranean Partnership. The year 2005 has been welcomed by European Union as the **Year of Mediterranean**. Ten years have passed since 1995 when the Euro-Med Partnership was launched in Barcelona during the First Meeting of the Ministries of Foreign Affairs of the 15 European Union Member States and the 12 Mediterranean Partners Countries (MPC)¹.

For the first time the Euro-Med region was conceived as a unique important geo-political area, where collaboration could cover political, economical and social aspects, according to the following inter-connected forms of partnership:

- 1 - Political and Security Partnership, establishing a common area of peace and stability
- 2 - Economic and Financial Partnership, creating an area of shared prosperity
- 3 - Partnership in social, cultural and human affairs

The Euro-Med Partnership is consistent with the European Neighbourhood Policy (ENP). **Cooperation in Science and Technology was considered as one of the pivotal elements to achieve most of the objectives to be pursued.**

The European Research Policy, for the period 2007-2013, through the elaboration of FP7 for Research, represents a unique occasion, for the EU, to elaborate a renewed and bold policy for Euro-Mediterranean cooperation with the identification of new financial resources and instruments able to implement the Barcelona Partnership. The unique characteristics of the Mediterranean basin create a specific scenario of problems, where RTD cooperation shall be used as a source to provide knowledge and intervention tools which will serve the mutual and common interests of the EU and the MPCs, providing them with the opportunity to become integral players in the European Knowledge-based society.

RECOMMENDATIONS

Under the initiative of MoCo five workshops, involving over 120 experts from the EU and MPCs, were initiated in order to provide the European Commission and the MoCo members with clear recommendations for the implementation of the future Euro-MED RTD policy.

It was recognized that transition to the knowledge based economy of MPCs requires:

- economic and institutional frameworks able to promote the efficient use of knowledge and the flourishing of innovative forms of entrepreneurship;
- an educated and skilled population to create, share and use knowledge;
- dynamic information infrastructures and systems;
- competitive National Research and Innovation Systems suitable to create synergies with industrial firms, research centres and socio-economic apparatus.

¹ In 1995 MPCs were: Algeria, Cyprus, Egypt, Israel, Jordan, Lebanon, Malta, Morocco, Palestinian Authority, Syria, Tunisia and Turkey

PARTICIPATING IN FP7

The participation of MPCs in FP7 should be structured according to the provisions established for International Cooperation in the four Specific Programmes and the specific demands for RTD cooperation in topics of common interest identified by the MoCo, which should be included in the specific Work Programmes and developed through specific calls for proposals. Moreover, in order to facilitate the opening of the 9 priorities of the Cooperation Programme to MPC partners, specific tracks and procedures should be envisaged to encourage the incorporation of MPC teams or individuals in the consortia formed to develop the research projects.

INNOVATIVE PRODUCTION SYSTEMS AND PROCESSES

Support to the MPC NSI (National System of Innovation) and their integration into the EMIS

1- Mechanic and Electronic sector

- Potential growth in IP design for micro-electronics;
- MEMS for auto and bio-medical industries
- Intelligent tools for mechanical design and manufacturing
- Rapid prototyping for electronics and mechanical applications
- Code development and simulation software for mechanical applications

2- Textile and Leather industry

- Ecological processes especially for leather industry
- Technical textiles and geo-textiles
- Quality Control Systems
- Development of e-business

3- Chemical and Materials

- Nano-materials
- New materials (from solid wastes, for cultural heritage , etc.)
- Functional Materials
- Adaptive materials
- Chemical treatment of water and air pollution abatement
- Pharmaceuticals
- Plastics processing business

4- Agro-Industry

- Screening and ex-situ conservation of microbial strains of industrial interests yeasts, bacteria and molds
- Microbial diversity particularly those having potential to be exploited in the agro-industry to produce novel foods, specific enzymes or health promoting factors
- Novel products and/or innovative processes, such as bio-products bio-preservatives, probiotics and nutraceuticals
- Environmental-friendly processes and non-pollutant practices
- Bio-farming
- Food packaging
- Practises for improving storage and distribution of food industrial products
- Practises for harmonisation of quality standards.

WATER RISK MANAGEMENT AND RENEWABLE ENERGIES

RENEWABLE ENERGY SOURCES

A- Sustainability in building design and retrofitting for Mediterranean Areas

Domestic solar cooling, passive techniques/ bioclimatic architecture and integration of solar energy in design of buildings

B - New sources from renewable energies

- Hydrogen from renewable energy sources (mainly solar)
- Energy from organic wastes (link with water) and crops

C- Technology adaptation to Mediterranean conditions

- Improving PV systems performance under severe external conditions (cooling, coatings, cleaning)
- Improving solar thermal systems performance under severe external conditions (coatings, cleaning, stagnation)
- Improving solar collectors and systems efficiency
- Big solar power plants (stability, control, simulation of operation)
- Integration of solar energy in industrial applications
- Distributed electricity generation including storage and microgrids in remote areas (control, connection to the grid, small communities, islands)

D- Renewable energy and water

Use of renewable energy sources for desalination, water supply and waste water treatment

WATER RISK MANAGEMENT

Integrated water risk management

Risk to water supply and quality. Risk due to extreme events. Support to decision making

Water policy and regulatory framework

Water policy analysis and common indicators to assess water policy objectives.

PUBLIC HEALTH

Nutritional disorders - Malnutrition, micronutrients deficiencies, Obesity.

Research has to focus on diagnostic as well as interventional aspects of the issue.

Major chronic disorders

Focus on epidemiological research of chronic disorders (cancer, diabetes, cardiovascular, obesity) that show strong variations in occurrence both among and within Mediterranean countries, including research on gene-environment interaction.

Infectious diseases

- Surveillance, preventive and diagnosis research on TB, HIV, Zoonosis and parasitic infections

- Research on new strategies for the prevention of antibiotic resistance including studies on surveillance and consumption patterns.

Consanguinity related diseases and genetic research

Identification of disease genes of public health relevance; genetic predispositions for cancer and infectious diseases.

Health system research

- Research aiming to the improvement of health information systems, the effectiveness of health interventions;
- Operational research on the provision of health care and improvement of equity.

FOOD AND AGRO-INDUSTRY

Sustainable use of agro-environment and technological development of agro-industry in arid regions.

- Interaction between farming systems and ecosystems including low input production systems
- Biotic and abiotic stress adaptation of plants, including applied genomics
- Optimal application of agrochemicals, effluents and recycled waste material
- Strategy to cope with animal and plant diseases risks
- Assessment of climate hazards (drought, floods, fires, ...)
- Development of appropriate Information and Communication Technologies

Improve and promote Mediterranean traditional agro-food products in their positive added values

- Identification and characterization of health benefit to human nutrition and risk assessment of Mediterranean food.
- Adaptation of new advanced technologies in processing, preservation and food safety of products of great interest to Mediterranean countries.
- Exploring / improving the traditional Mediterranean food quality through innovative technology.
- Biological basis of the positive effects of Mediterranean environmental stresses (drought, high temperatures and salinity) on plant derived food quality and nutraceutical value.
- Natural and cultivated sustainable fish production in Mediterranean ecosystems.

Mediterranean ways of consumption and commercialisation of agro-food products

- Better understanding of consumers' preferences about traditional and modern food
- Quality perception by the consumer (organoleptic, sanitary and nutritional characteristics) for traditional (historical, certified, labelled) and new products (GMO, bio, organic, functional food, etc.)
- Need to develop new methods of information and education for consumers (about traceability labels, quality standards, scientific knowledge, regulations, etc...);
- Establish relationship among main actors across the food chain, and evaluate the interactions with the value chain;
- Understand how modern catering can coexist with the traditional one;
- Define the role and the institutional set up in order to guarantee quality, safety and security

Policy and institutional aspects for sustainable agriculture and rural development

- Impact of agricultural, rural and environmental policies
- Medium term effects of cross compliance on rural development
- Impact of norms and standards on trade
- Property rights structure (access to land, water, credit, land tenure, etc.) and IPR

CULTURAL HERITAGE

Knowledge and Documentation

Integration of new technologies of remote sensing and geophysical techniques.

Development of appropriate ICT and GIS systems for cataloguing tools (i.e. compatible databases).

Diagnosis, Monitoring and Assessment

Diagnostic techniques and non destructive methods for identification of deterioration processes.

Risk assessment methodologies for identification and mapping of anthropogenic and natural hazards.

Materials and Techniques of Intervention

Protective and conservative materials, integrating ancient and innovative technologies in the conservation of artefacts and the built environment.

Instruments, techniques and uniform procedures (protocols) for assessment of different restoration and preservation techniques following accepted professional codes and conventions.

Identification, recovery, adaptation and enhancement of traditional materials and technologies for sustainable development.

Integrated Management and Valorisation

Valorisation of natural, historical urban and cultural landscapes with the aim of safeguarding the EuroMed biodiversity and cultural diversity.

Multidisciplinary diagnosis methodologies and advanced design strategies for the sustainable management of the whole conservation process (i.e. expert systems).

Means of implementation:

COOPERATION

Specific calls for projects with MPCs participation have to be included in each theme. Appropriate conditions for ensuring MPCs participation have to be defined.

Implementation of measures allowing an easier access and the participation of MPCs. to the **nine thematic areas** of Cooperation Programme of the 7th FP; assuming that funds allocated will be additive to those reserved for INCO-MED PRIORITIES.

Identification and selection of the more appropriate priorities for MPCs taking into consideration aspects such as: complementary, synergy and contiguity with EU priorities (MEDA and Framework Programmes) and with bilateral projects on national scale; regional specificity and diversity.

Instruments and measures able to: increase funds available for MPCs and reduce parcelling out of funding; increase the number of partners from MPCs taking part to FP7 projects; value and exploit the results and the research developed;

Impact of socio-economic inequalities and migration as cross-cutting issues

IDEAS

This Programme offers unique opportunities to MPCs researchers to be incorporated and work in the edge of scientific knowledge by incorporating scientist from MPC in the IDEAS teams.

PEOPLE

As the basis for the Knowledge Society is the human capital, this programme is of very special interest for the MPC, making it necessary to:

- Networking of research institutions, researchers and research teams fostering regional cooperation and capacity building.
- Promoting mobility of scientists with special emphasis on early-stage researchers. Skills and career development. Encourage the exchange of graduate students through actions including “Marie Curie”. Return grants for research institutions and private industries
- Set up researchers mobility centres in the MPCs and to create a mobility portal for the MED-AREA with the assistance from EU-Commission. This would facilitate the uptake, for instance, of Marie Curie Fellowships by young researchers from MPCs.
- Develop research and training networks based on the concept of distance learning.
- Promote an assessment, benchmarking and foresight of the opportunities for training and mobility in the MED-AREA in order to match demand with offer.

CAPACITIES

The improvement of RT&D INFRASTRUCTURES and CAPACITY BUILDING in the MPC could be related to the implementation of a number of horizontal action related to the establishment of:

- conditions leading to the accessibility to large scale RT&D facilities, and transnational networks based on national centres of large facilities.
- incentives for the participation of SMEs to demonstration projects connected to the exploitation of know-how obtained in the course of previous FPs, and clusters to favour the merging of enabling technologies in sectors of regional interest.
- taking advantage of the new ICT and foster their massive implantation and use in: training (e-learning), knowledge sharing and dissemination (communities of practices), early alarm system related to risk management

The implementation of national capacity building and RT&D infrastructures, for MPCs, can be only fulfilled through the elaboration of an Action plan with specific measures to be adopted under appropriate programmes and with corresponding funds allocated.

SMEs of MPCs should be allowed to have access to: Co-operative Research Programmes (CRAFT); Collective Research Projects and Joint Technology Initiatives (including the instrument of Technological Platforms).

ACTIVITIES OF INTERNATIONAL CO-OPERATION

This activity of the CAPACITY programme deserves special attention because it specifically addresses the problems of mutual interest between the EU and the MPC and complements the activities of International Co-operation addresses in the other three programmes. Hence, this theme has to include specific calls for projects with MPCs participation including appropriate conditions for ensuring their participation.