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National MPC policies of cooperation with the EU in Science and Innovation: the case of Morocco

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Abstract. The EU and Morocco are fully engaged in a strong and deep cooperation supported by a high-level policy dialogue, and pertaining to multiple sectors including research and innovation. At the institutional level, the Association agreement (1996), the ST agreement (2003), the European neighbouring policy (2004), the new 'advanced status' and the programme called "To succeed the advanced status" have put emphasis on the consolidation of scientific and technological ties, and are supported by relevant implementation mechanisms and instruments. In May 2011 an institutional twinning program was launched to strengthen and bring closer the Moroccan research and innovation system to ERA.

Morocco is highly devoted to reinforce and intensify the current bilateral initiatives and programmes in the field of science and technology, aiming to the preparation and definition of joint activities targeting themes of mutual interest, the improvement of cooperation on industry-oriented ST cooperation between the EU and Morocco, the setting up of joint collaboration and networking of technical platforms and research laboratories. Through these efforts, the scientific and technological cooperation with the EU is considered as a driver for the implementation of the national strategy for research Horizon 2025, a support to sectoral national programmes of socio-economic development and to the achievement of the knowledge-based economy.

Keywords. Cooperation - Policy dialogue – Integration - Research - Knowledge - Morocco - European Union.

Stratégies de coopération des pays méditerranéens partenaires avec l'Union Européenne en science et technologie: le cas du Maroc

Résumé. L'UE et le Maroc sont pleinement engagés dans une étroite coopération soutenue par un dialogue politique de haut niveau, notamment dans la recherche et l'innovation. Au niveau institutionnel, l'accord d'association (1996), l'accord de coopération scientifique et technologique (2003), la politique européenne de voisinage (2004), le nouveau « statut avancé » et le programme « réussir le statut avancé » ont mis l'accent sur la consolidation des liens scientifiques et technologiques, et sont soutenus par des mécanismes et instruments de mise en oeuvre pertinents. En mai 2011, un programme de jumelage institutionnel a été lancé pour renforcer et rapprocher la recherche et l'innovation marocaine de l'Espace Européen de la Recherche.

Le Maroc est fortement dévoué à renforcer et intensifier les initiatives en cours et les programmes bilatéraux dans le domaine de la science et de la technologie, visant à la préparation et à la définition des activités conjointes ciblant des thématiques d'intérêt commun, l'amélioration de la collaboration bilatérale en ST orientée vers les besoins de l'industrie, la mise en place d'une collaboration conjointe et la mise en réseau des plates-formes techniques et des laboratoires de recherche.

A travers ces efforts, la coopération scientifique et technologique avec l'UE est considérée comme un levier pour la mise en œuvre de la stratégie nationale de la recherche à l'horizon 2025, le soutien aux plans nationaux sectoriels de développement socio-économique et la réalisation de l'économie fondée sur le savoir.

Mots-clés. Coopération - Dialogue politique – Intégration - Recherche – Connaissance - Maroc - Union européenne.

I – Bilateral cooperation in RDI

RDI (Research, Development and Innovation) is one of the strategic sectors in which Morocco and the European Union are fully engaged in a deep partnership process constantly increasing since the Association Agreement signed in 1996, the Agreement for Scientific and Technological

Cooperation signed into 2003 and entered into force in 2005, and finally the advanced status granted in 2008. The strategic objective for Morocco is the integration into the European Research Area.

1. Framework of RDI strategy in Morocco

Over the last few years the Kingdom of Morocco has launched several sectoral integrated programmes aimed to its socio-economic development, especially in Industry (Emergence Plan), Energy (Moroccan Solar Plan), Agriculture (Green Morocco Plan), Tourism (Plan Azur), Information and Communication Technologies (Morocco Numeric Plan), and Innovation (Moroccan Innovation Initiative). Regarding scientific research, in 2006 the Ministry of Higher Education and Research set up the National Strategy Horizon 2025, in order to contribute through an increasing effort in research and development, to the support of those strategic programmes.

Also, through this strategy, Morocco aims to increase the share of GDP devoted to R&D (currently around 0.73%)¹, while allowing the cooperation with the EU strategic interest, given the importance of bilateral ties of partnership at all levels.

The measures taken in recent years in this sector allowed the increase in the share of GDP allocated to scientific research from 0.73% in 2010 to around 0.8% today, the production in 2012 of more than 2811 publications in international indexed journals against 2335 in 2010, the deposit of 856 patents (of which 90 by universities in 2012 against 70 in 2010) and the launch of 475 applied research projects in partnership with private companies.

In order to boost the Moroccan RTD system, Morocco relies on the following inputs:

- 13,000 researchers
- 5606 MDH (accounting for 0.73% of GDP)
- 45% (Higher Education and Scientific Research) 24% (Public centres of research) 2% (cooperation) 29% (private sector).

2. Participation of Morocco in the FP

Morocco is involved in all the thematic areas of FP7, and a number of societal challenges identified for the next Horizon 2020 programme are set up by the national strategy through the 2009-2012 Action Plan:

- agriculture adapted to climate change conditions
- health and well-being increase
- study, conservation and enhancement of natural resources, notably water and renewable energies
- environment and sustainable development
- biotechnologies
- management of threats (financial, natural, technological, cyber-security etc.)
- innovation and competitiveness of enterprises
- cultural and socio-economic development.

This bilateral cooperation in R&D and innovation is supported by a high-level institutional and policy dialogue, which is reflected by the significant increase of Moroccan participation in the framework programmes of research and development (FP6: 2002-2006 and FP7: 2007-2013) over the last decade. However, the full potential for the qualitative and quantitative strengthening of bilateral cooperation is far from being achieved.

3. Assessment and analysis of bilateral cooperation

The findings of the two recent evaluation studies of Morocco/EU ST cooperation showed undeniable obstacles that hinder this potential to be fully realized. This is mainly related to the administrative and financial complex management, the inadequate enhancement of research results, as well as the lack of structures in Moroccan universities dedicated to proposal building and project management.

<p>Strengths</p> <ul style="list-style-type: none"> • Institutional and technical support system (JSC, political dialogue, NCP system, institutional twinning, BILAT and INCONET projects.) • Convergence between FP priorities and thematic priorities of Morocco • Growing experience of Moroccan teams in FP and diversification of profiles 	<p>Weaknesses</p> <ul style="list-style-type: none"> • Absence in universities and research centres of structures dedicated to project preparation and management • Difficulties to enhance the results of research (FP) • Problems in administrative and financial management • Poor research activity in specific disciplines (SSH, Nanosciences etc.) • Moroccan participation often results from foreign initiatives • Evaluation culture is still weak
<p>Opportunities</p> <ul style="list-style-type: none"> • Launch of joint calls (former ERANET) synonym of more co-ownership • Integrated programme HORIZON 2020 (simplification of rules) • Sectoral strategies for Research and Innovation • Synergies between the programme “to succeed the advanced status” and the institutional twinning project 	<p>Threats</p> <ul style="list-style-type: none"> • Lobbying (warning system) is required to strengthen Moroccan participation in FP • The approach to co-funding and co-ownership requires more convergence towards the European Research Area

Figure 1. SWOT Analysis of bilateral cooperation.

4. Institutional dialogue and support instruments

To improve the environment for the participation of Moroccan researchers in European programmes, the Ministry set up, with the support of the European Commission, the Information National Point in 2005, the institutional focal points in 2007 and finally thematic contact points in

2010. Also, two structural projects “M2ERA “(2009-2012) and the institutional twinning project “Strengthening Institutional and Administrative Capacity of Scientific and Technological Research” (2011-2013) play a supporting role to the policy dialogue with the EU in ST, and contribute to the upgrading of the national research system towards its integration to the ERA.

On numerous occasions, Morocco has shown its strategic position vis-à-vis the cooperation with the EU, as it is realised through the high-level policy dialogue in the Joint Steering Committee (JSC), the ENPI sub-committee for Research and Innovation “SCRI” (on bilateral scale), and the Monitoring Committee “MOCO” (on bi-regional scale).

In the current context of preparation of the next programme Horizon 2020, the implementation of the Common Agenda for Research and Innovation (CRIA) and a bi-regional programme for RI that may be potentially based on Article 185 of the TFEU, Morocco has given a significant support to the ERANET project “Arimnet” and the derived joint call for proposals, and also to the next ERANET MED in preparation.

At the strategic level, it is important to emphasise the participation of a high-level Moroccan delegation in the Euro-Mediterranean Conference for RI, held in Barcelona in April 2012, as well as the important meeting between a Moroccan delegation of officials from the Ministry, the Institute of Agronomy and Veterinary, R&D Maroc Association and the Director of International Cooperation (DG RI, EC) that took place in June 2012 in Brussels.

Through this high-level dialogue, Morocco highlighted its expectations regarding RTD cooperation with the EU, which goes beyond the number of funded projects and financial contributions, to achieve the objective of integration into the European Research Area, with major consequences in terms of convergence to European standards (governance, legal framework, infrastructure, research capacity etc..) and the launch of common initiatives based on thematic priorities of mutual interest.

II – Future developments and recommendations

1. Future developments

Through these efforts, the scientific and technological cooperation with the EU is considered as a driver for the implementation of the national strategy for research Horizon 2025, a support to sectoral national programmes of socio-economic development and to the achievement of the knowledge-based economy.

Two major axes of the Ministry action plan for the 2013-2016 period concern international cooperation, mainly with the European Union, as listed below:

- support and funding of scientific research including the increase of the R&D expenditure to reach 1% of GDP, the development of partnerships with the private sector and the promotion of international cooperation;
- reinforcement of cooperation in science and technology to foster the knowledge-based economy in Morocco.

The transition towards HORIZON 2020 will be ensured through the support of the next BILAT and INCONET projects starting, respectively, in November 2012 and February 2013, combined with the promising impact of the two running ERAWIDE projects and the next initiatives focused on the research and innovation chain (R2I). Those developments will certainly build on MIRA achievements and pave the way to deepen bi-regional cooperation in STI.

2. Recommendations for future activities

Some of the following recommendations are actually being implemented:

- endorsement of a joint road map that highlights the principles of co-ownership, mutual interest and shared benefits;
- the new BILAT project MOBILISE will play an important role for the transition towards Horizon 2020 and in supporting the policy dialogue;
- independent structure for the evaluation of scientific research (international cooperation);
- specialized units in proposal building and project management;
- developing a simplified management framework for cooperation project activities;
- developing specific skills in technology transfer and enhanced absorptive capacity;
- measures to increase mobility of researchers, in the frame of cooperation projects;
- fostering an environment conducive to private participation:
 - legal and regulatory arrangements;
 - institutional support and implementation capacity;
 - sector-specific strategies;
- revision of per diem rates for researchers in the frame of cooperation projects;
- reinforcing tax incentives for the private sector to create or support structures, programmes and research projects.

Notes

- ¹ 1% of GDP foreseen in 2016 according to the Action Plan of the Ministry of Higher Education and Scientific Research 2013-2016.

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