TOWARDS AN INNOVATIVE UNIVERSITY IN THE SOUTH? INSTITUTIONALISING EURO-MEDITERRANEAN CO-OPERATION IN RESEARCH, TECHNOLOGY AND HIGHER EDUCATION

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Abstract - This article deals with the strategies of institutionalising scientific, technological and educational co-operation in the context of recent Euro-Mediterranean relations. In order to understand the process of creating a new kind of Euro-Mediterranean cooperation policy in those areas of activity, it is necessary to have a broad view of the social contexts that determine that same process. The newest phase of socio-economic modernisation, what is often referred to as the 'information era', is responsible for changing both the concept and the institutional structures of international cooperation between universities and in the science and technology sectors. One of the key aims of the renewal of the co-operation policy before and after the ministerial conference held in Barcelona 1995 is the promotion of the vision of the innovative university in the southern and eastern Mediterranean countries, one that actively responds to the needs of the new political economy and new strategies of scientific, technological and educational cooperation in the Euro-Mediterranean region. This article critically addresses this ideal for the southern university, taking into account the fundamental issue of socio-cultural sensitivity, as this is manifest or absent in the Barcelona framework. It is argued that the broad consensus that was present among the various European and non-European participants of the working groups at the Fórum Civil Euromed - a consensus that emphasised the gap in the southern Mediterranean countries with respect to technology and universitybased research - could be said to be the direct result of the way in which these 'fora' were organised. It is claimed that different voices might emerge, and therefore the conceptual basis of cooperation broadened, if participants from other sectors of civil society were to be involved.

Introduction

Scientific, technological and educational interaction between Europe and the southern and eastern Mediterranean world has been extensive throughout the long colonial period as well as during the first decades following the achievement of independence of states in the region. This interaction has been mainly marked by

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asymmetrical relations, with European ideas about science and education being used as a modernising strategy by colonies or nation states.

The focus on asymmetrical patterns of interaction, together with the conceptualisations that underlie such relations, are, however, too limited in scope when one considers the situation over a longer historical perspective. We may, for instance, refer to the golden era of philosophy and science in the Arabo-islamic world during the Middle Ages. The translations and comments of classic Hellenistic science made by such figures like Ibn Sina (Avicenna) were passed on to European researchers. The impact of the Arabic-speaking world on the birth of modern empirical science and scientific-technological culture at large has been crucial (Goichon, 1969; Lindberg, 1978). Moreover, as noted also by Sultana (1999) in his article in this issue, the institutional history of higher learning is generally much longer along the southern rather than the northern shore of the Mediterranean. The transfer of knowledge, in this perspective, followed rather more a south-north rather than a north-south trajectory.

The eurocentric view of the history of 'Western' science and technology lacks cultural sensitivity towards the early institutionalisation of higher education and scientific studies in the Arabo-islamic or, more widely, in the oriental world. The issue of socio-cultural awareness in scientific, technological and educational cooperation between European and Arabo-islamic Mediterranean states has a long history, and one can indeed tease out continuities between that tradition and the contemporary world. Such continuities can be postulated despite the rapid changes brought about by the globalising economy and its effects on the international system. At the same time, though, we have to have an open mind in order to discern the relevant changes in the structures and patterns of interaction and co-operation between the north and the south. It is necessary to keep in mind such complexities if we are to understand the state and the nature of co-operative relations in the areas of research, technology and education (hereafter referred to as RTE) and the challenges that have to be faced in the present-day Euro-Mediterranean context.

My focus will be specifically on the more recent developments in the cooperative structures of RTE in the Euro-Mediterranean region. In doing that, I will attempt not to lose sight of the continuity that marks scientific interaction in the region, despite the fact that the concern is with changing structures. Operationally this will mean a moderately critical stance towards current eurocentrism and the ahistorical ways in which RTE co-operation is both conceptualised and institutionalised. Such an epistemological starting point will also keep at bay an unreflective and sceptical attitude towards new possibilities for socio-culturally sensitive and sustainable institutionalisation of RTE co-operation.

If we are to understand how a new kind of Euro-Mediterranean RTE cooperation policy can be developed and implemented, it is essential to keep a

broad outlook on the changing international scene. The newest phase of socioeconomic modernisation - what is often referred to as the information era - is changing both the concept and the institutional structures of the major institutions of higher learning. Indeed, one could argue that the ministerial conference held in Barcelona in 1995, when focusing on RTE co-operation policies, had the innovative managerial, financial and pedagogical structures of the universities in the Mediterranean Arab countries keenly in mind. Obviously, this begs the question regarding the extent to which such RTE co-operation policies are marked by socio-cultural awareness, and whether the ideals projected for the university as an idea are congruent with different socio-cultural realities.

A road to a multilateral co-operation concept

As has been noted in several discussions and publications (e.g. Melasuo, 1995; Turunen, 1996), the Barcelona meeting has been regarded as an important turning point in the history of political, economic and (perhaps also) cultural relations between the European Union and the twelve non-member countries in the Southern and South-Eastern Mediterranean. Specifically, the meeting brought to a head the process of change in the EU's Mediterranean policy, a change that had commenced in the latter part of the 1980s. One of the most important challenges in that process has been the end of Cold War, since it made possible the strengthening of EU integration with Eastern Europe and gave a new strategic meaning to North Africa and the Middle East as a 'neighbourhood' area for an expanding EU macro region (Lorca and Nunez, 1993; Smith and Lahteenmaki, 1998).

The Barcelona declaration and its preparatory EU documents show us that the European Union as well as its partner countries acknowledge the crucial importance of RTE co-operation in the Barcelona process (Kuitunen, 1997). The partnership programme aims at launching a new generation of co-operation programmes under the comprehensive policy of Euro-Mediterranean relationships. This has facilitated the birth and growth of many other activities outside the immediate patronage of the EU administration.

Despite many encouraging initiatives, the launching of new co-operative activities in the fields of RTE seem to be more difficult than was thought. Simultaneously, the pressure towards realising concrete positive results is increasing. This fact is evident in the Euro-Mediterranean partnership at large. The basic question is how to create new forms of co-operation despite the many obstacles that exist, many of which are directly related to momentous political, economic and cultural issues - such as the complex matter of the Middle East peace process.

This overall situation renders the institutionalisation of co-operation - together with the sensitivity towards the socio-cultural context on which such co-operation is based - major areas of concern for the future of the Barcelona process. This clearly is relevant to the area of RTE co-operation as well. For example, it can be suggested that the science policy dimension of the Euro-Mediterranean cooperation policy has been strongly based on the general lines of the science and technology policy of the EU. If this is the case, then the crucial question is how to build co-operation practices which are socio-culturally more in tune with the specific contexts of the Mediterranean region - in other words, the challenge is how to construct a specific Euro-Mediterranean policy of research and education co-operation that is organic to the prevailing situation. In fact this tendency towards a regional co-operation between the European Community and the Mediterranean South.

The bilateral system of financial and technical aid, - one that involves scientific and technological components as well - has, since 1978, been the main framework throughout which the EU regulated its relations with developing countries (European Commission, 1994). The special focus on scientific and technological development cooperation took off when the Science and Technology for Development (STD) programme was started. In the STD programmes (1982-1994), the Mediterranean region was just one geographical area among many, with co-operation agreements reflecting a more general policy that had no regional specifications apart from some flexibility in country by country agreements. An important step towards a region-specific system of cooperation was taken when the ICS (International Scientific Cooperation) programme was established in 1984. It focused geographically on the newly industrialised developing countries in Asia, Latin America and the Mediterranean region. The European Union has strengthened the economic interaction and development co-operation with those areas and scientific and technological interaction has been one aspect of this general trend.

During the 1990s, a multilateral and regional approach to Euro-Mediterranean co-operation has been introduced in parallel to, and supporting, the dimension of bilateral structures. The development of a regional approach and the multilateral MED-programmes reflecting this - programmes such as Med-Invest, Med-Urbs, Med-Media, Med-Campus, Med-Avicenne - have led up to the Barcelona framework, where key elements have been a focused approach to the southern and eastern Mediterranean countries as a whole, and regional integration inside the area.

The turn towards a regional approach to Mediterranean co-operation could be said to have started formally in 1992, as a result of several transformations in the working environment of the international community. In point of fact, the process towards a 'New Mediterranean policy' and even towards Euro-Mediterranean partnership goes back to the latter part of the 1980s, soon after the northern Mediterranean states of Spain, Greece and Portugal joined the Community. According to the guidelines of EU's Ministerial Council at the end of 1985, the priority areas of the reform process were to be the promotion of local food production as well as the widening of industrial, scientific and technological cooperation, which were to also include the mutual integration of southern Mediterranean countries (Niblock, 1997: 122-123).

Scientific and technological co-operation has therefore been regarded as one of the principal strategies in promoting socio-economic development in southern and eastern Mediterranean countries and making the Mediterranean co-operation policy more efficient. The pressure for policy reform has increased after the poor economic performance of many Arab countries in the mid- and late 1980s, as well as due to the radical geopolitical transformations taking place at that time. Both economic and security aspects as well as poor results of the former Mediterranean policy gave evidence of the great need for reform. By launching Medprogrammes, including those focusing on university networking (Med-Campus) and research and technology (Med-Avicenne), the EU wanted to construct a new kind of cooperative structure and to test its implementative instruments in practice before confirming a major reform of the overall framework. The gradual shift towards a more comprehensive politicisation of socio-economic relations in the Euro-Mediterranean region, and the increasing importance given by Europe towards the development of a Mediterranean policy, can be seen as a general trend behind the process of this renewal (see Lahteenmaki and Smith, 1998; Linjakumpu, 1995).

Mediterranean university co-operation within the framework of Med-Campus was divided into four thematic areas. These included (1) regional, social and economic development, (2) management in private and public enterprises, (3) environmental management, and (4) cultural exchange. There were a number of conditions which had to be fulfilled in order for a country to benefit from financial support. Joint projects were only possible, for instance, in countries which had adopted liberal market politics, and in situations which were marked by institutional stability. There had to be ongoing development projects which could benefit from the new expertise offered by the co-operation agreement. Such conditionalities clearly indicate that university and higher education co-operation was closely linked to a policy of structural adjustment. Such a conclusion is also warranted because the university courses that were generated focused on themes which generally have direct or indirect effects on the development of modern socio-economic infrastructures. Due to the direct relevance of co-operation in the science and technology areas in promoting development, the programme Med-Avicenne had an even more rigorous connection to the aforementioned goal of structural adjustment.

We may therefore conclude that the decentralised Med-programmes foreshadowed the spirit of the Barcelona process. The strengthening of the science and education policy dimension has been one strategic element of that process. Due to administrative problems, however, many of these programmes were terminated soon after the Barcelona meeting. After a long delay, Med-Campus was given a new lease of life in 1998. Med-Avicenne disappeared from the scene in 1994, when it was merged with a new programme of international scientific and technological co-operation between EU and third countries (INCO).

Following the Barcelona conference, the INCO programme was established in order to co-ordinate all the EU's scientific and technological co-operation with third countries, one section of which is developing countries (INCO-DC). INCO belongs to the EU's framework programme of research and technological development. As with co-operation in terms of the framework programme in general, the INCO-DC is based on a multilateral system. In other words, the joint projects are not organised in terms of bilateral governmental agreements but in a more flexible way between university departments or research institutes and enterprises from three or more partner countries. The national priority areas are, however, agreed upon in negotiations with developing countries.

The thematic focus of INCO-DC has been on four areas: sustainable management of renewable natural resources, improvement of agricultural and agro-industrial production, health issues, and other areas of mutual interest. The last part has increasingly been directed to co-operation in information and communication technology, but non-nuclear energy, biotechnologies as well as material and production technologies have also been supported.

Despite the growing differences between third world countries, INCO-DC has not been specified geographically to the southern Mediterranean or any other developing regions. The Monitoring Committee of Euro-Mediterranean RTD cooperation has considered this to hinder efficient co-operation. As a result, a special INCO-MED programme has been launched in the fifth framework programme.

More important than INCO's operational modes is, naturally, the overall cooperation policy and politics behind its implementative structures. As a whole, INCO is clearly determined by the EU's RTD co-operation policy in general, the aim of which is to strengthen the European scientific and technological base and, through it, to promote industrial competitiveness in a global economy. INCO is structured around the idea that international scientific and technological co-operation is an increasingly important condition for economic vitality and, moreover, that the increasing co-operation between the EU countries is not sufficient for that purpose.

Information technology has become one of the main areas of co-operation between the EU and developing countries. As explained in the five year assessment of the INCO programme, the aim is to integrate developing countries - and especially the rising economies of the newly industrialised ones - into the global information society by increasing their information technology expertise, productive capacity and regional networking (European Commission, 1997). This policy of co-operation can be seen as useful both for local employment and development aims and for European information technology corporations. It is assumed that co-operation will increase understanding of the socio-economic, political and institutional environment in developing societies and the conditions of technology transfer to them. In addition to this, a greater awareness and understanding of the global information society contributes to a deeper commitment to technology on the part of key actors in a developing country. This line of argument may, at first sight, appear to be merely rhetorical, with the intent being to encourage European enterprises to invest in the possibilities of multilateral co-operation. But the logic behind the argument also reflects deeper changes in the interaction patterns of science and technology on the global scene.

Science, technology and developing countries in the era of global changes

Global enterprises have not only brought their production to newly industrialised countries but also dispersed some of their RTD activities in them. The opening markets for high technology products in the developing world presuppose sufficient local knowledge about technology as well as a consciousness of the economic and societal functions of research and of the need for the development of appropriately qualified human resources. The globalisation of RTD is one aspect of a more general shift towards the vision of a global information society, expectations of profit connected to it, and new kinds of cooperation activities between North and South. It is evident that the EU countries do not want to 'lose' these trends if their aim is to promote the development of their industrial base and to help launch new useful modes of co-operation. According to the prevalent ideology in this regard, this is also what the developing countries need if they want to lessen their economic and social problems and to benefit from global trends.

The INCO programme, like the EU's other RTD programmes, is essentially the result of these kind of trends. The RTD co-operation system of the EU is adapting itself to the restructuring of the international political and economic order after the cold war. The increasing differentiation of the third world is one result of such radical changes. Many of the developing countries and newly industrialised states have increasingly integrated themselves into the global economy by transforming their economic policy from import substitution and strong public governance to export oriented free trade and privatisation of state functions. As mentioned by Shinn *et al.* (1997: 18), this turn towards a new paradigm of development is closely connected to globally oriented technoeconomic frontiers of telecommunication, microelectronics, informatics, new materials, and biotechnology.

Many countries in Latin America and in South-Eastern Asia ('Asian tigers' as well as China and India) have, since the 1970s, systematically developed their scientific and technological equipment, as well as their scientific staff and their policy for science and technology. This trend has followed the lines of 'science and technology for development' thinking and can to some degree also be discerned in Arab countries. In the process of global transformations, the expansion of higher education and progress in scientific capacity have appeared to be an important usable resource. Through the globalisation of norms in research and education policy as well as through giving space for other institutional renewal, the developing countries can essentially better their chances to integrate themselves in the global economy (Shinn et al., 1997). However, in the case of Arab countries, many experts of science policy have seen structural problems which have been detrimental to the prerequisites for scientific and technological capacity and its efficient use in societal development (Al-Hassan, 1979; Zahlan, 1980; Khasawnih, 1986; Daghestani, 1993; Qasem, 1996, 1998a, 1999; cf. also Workshop, 1996). Many of these evaluations are not very up-to-date and significant changes are possible. For example, the rapid privatisation of the Jordanian university sector during the last few years is one instance of the opening up to structural change (with its positive or negative results for the various segments of society).

The preconditions for taking part in the global economy, which are increasingly and evidently dividing the third world countries into developing and declining ones, are increasingly seen to be dependent on scientific and technological capacity and ability to adapt research and education systems to the new demands of the global environment. For example, it has been regarded crucial that developing countries have the ability and willingness to adopt a new conception of technological innovation and new kinds of institutional interactions between academic research community, public governance and private enterprises (in the studies of science and technology policy this has often been called 'triple helix' - see, for instance, Etzkowitz and Leydesdorf, 1995). A few developing countries with strong scientific capacity have shown this kind of will and ability. This seems to be closely connected to the early institutionalisation of strong research centres, science policy organs as well as to the establishment of a research community of science policy studies and educational degrees in science and technology management (Shinn *et al.*, 1997). Unlike some countries with either a Muslim majority or a significant Muslim minority in the Far East, Arab countries seem to have been slow to give strong political priority to science policy or institutional support to systematic studies of science policy as a complex phenomenon, despite the fact that science policy organs were the subject of institutionalisation relatively early.

From the overview above, we can draw the conclusion that there is a common political consensus about the new structure of co-operative activities between developed and dynamic developing countries. They use a common language about science and technology as a precondition for economic success and integration in the global economic space. This will provide new possibilities for international scientific and technological co-operation as compared to the policy of self-reliant development and demand for structural reformation towards a more just world which was inspired by dependency thinking and its tendency towards political criticism. It is important to note that referring to those new possibilities is not a normative commitment to the trend as such but is rather an analytic remark. In order to make a normative evaluation in terms of democratic principles one could ask, for example, (1) how comprehensive the political consensus is in the society at large? (2) What are the short and long-term effects of the new policy on large segments of ordinary people? and (3) To what degree has a working balance between global and local been found?

The new consensus of science policy and partnership between North and South is strongly accompanied by a general change of the development thinking in international and national fora. The common vocabulary of development cooperation is neither modernisation in its conventional mode nor dependency tenets. Instead, it is closely connected to a normative construction of a global information technology-based society and a neoliberal politico-economic philosophy underpinning it. The neoliberalistic turn has given rise to a new interpretation of relevant societal facts, purposes and practices in almost all sectors of society and the international community (Rothenberg, 1984). What is most important, neoliberalism is an effective ingredient in the change of political and economic climate in which the capitalist system has reacted to the world-wide economic crisis since the first part of the 1970s and gradually rejected the combination of Keynesian macro economic policy and compensative social policy typical to the welfare state. In other words, neoliberalism has offered political legitimacy for societal change away from the mass production system of the welfare state, towards the information society and its different conception of the state. The new policy of information society has given more space to the logic of market forces on the local, national, macro regional and global level.

The neoliberal turn is also evident in North-South relations and in the role of developing countries therein. Changing conceptions of economy and government in society as well as in international community have been legitimated by referring to changing realities and to new interpretations of such essentially normative concepts as freedom, rights, justice, and democracy (Boréus, 1997). Accordingly, the explanations for the uneven global development have changed radically. Unlike the propositions of both modernisation theories on the one hand, and dependency theories on the other - both of which put emphasis on the aid coming from international community to the developing countries - neoliberal thinking focuses on the internal structures of a poor country. According to the neoliberal programme, financial aid should be conditional to institutional modernisation in which privatisation of the state sector, opening the markets for foreign trade and development of needed infrastructure for foreign investments should be realised. Societal reforms concerning the productive sector, together with those concerning many purely government-driven social sectors like health and education, are to be realised with the support of the dynamic private sector rather than through public planning and finance. These are basically the same prescriptions which are generally meted out to economies in the developed world.

It has become evident enough that neoliberal development philosophy is closely connected to changes towards the information society and its innovationbased economy. The analysis proposed by van Audenhove and his colleagues (1999) about Africa's Information Society Initiative adopted by the UN Economic Commission for Africa in 1996, refers strongly to the conclusion that the Western information society paradigm has shifted to developing countries without sufficiently problematising its institutional presuppositions and societal relevance. The same argumentative strategy about the positive effects of privatisation of the communication sector in society and investments in the telecommunication infrastructure is used as in Western countries. Moreover, powerful international organisations and multinational enterprises have many possibilities to realise their policies according to the logic of this kind of argument. I agree with the authors that the capability and need of socio-cultural evaluation of the role of information technology in the national policy of a developing country will become a crucial issue.

In dealing with that issue, it is important to note that information technology is not just a sector among technological innovation activities but a very compelling techno-economic and socio-cultural paradigm. As Manuel Castells (1996) has shown in his broad analysis of changes towards global informational society, the information paradigm has led to the rising global network economy on which the competitiveness of local, national and macro regional economies are increasingly seen to depend. That is why this paradigm has so strong a normative and political

appeal. It is comparable to the Fordist model of mass industrialism which was the dominant techno-economic paradigm of the welfare state period.

Thus far, I have attempted to give an account of global changes and their effects on North-South relations in scientific, technological and (to a lesser degree) educational co-operation. It is crucial for the purposes of this paper to see how the trends that have been identified will help us understand the science policy dimension of the Euro-Mediterranean partnership framework. The role of science and technology in the globalisation processes and changes in the international political economy are major determinants of RTE co-operation policy in the Mediterranean basin as well. In trying to demonstrate this I will turn, in the following sections, to the analysis of the co-operative policy of various sectors of civil society in the Euro-Mediterranean area.

The co-operative thinking of Euro-Mediterranean civil society actors

A major new aspect of Mediterranean policy in the Euro-Mediterranean partnership framework was that civil society was regarded as essential to the promotion of the Barcelona process. This represents a qualitative change from the past. As former vice- president of the European Commission Manuel Marin said in 1996, this shift basically reflected a concern with the question of legitimacy. It became clear that the institutionalisation of widening Euro-Mediterranean cooperation could not be sustained unless it received the support of - and was actually implemented by - a wide range of representatives from partner societies.

The civil society conference has been a visible counterpart of the ministerial meeting in Barcelona as well as of the follow up conferences in Malta (1997) and Stuttgart (1999). Several other Euro-Mediterranean meetings have also seen the active participation of civil society actors. In this context I will concentrate on the important meeting of Fórum Civil Euromed (hereafter 'Civil forum') which was organised immediately after the ministerial conference in Barcelona. The meeting was sponsored by the European Commission, Spain's foreign ministry, and UNESCO. Operational preparation and management was carried out by a Spanish institute dealing with Euro-Mediterranean interaction (Institut Catalá del la Mediterrània d'Estudis i Cooperació).

The Civil forum gathered together about 1200 representatives from business, universities, trade unions, arts and other sectors of society. The meeting was held in the 'high spirit of Barcelona' in which strong optimism about opening a new era in the Euro-Mediterranean relations was typical. The Civil forum organised the discussion on ways to promote Euro-Mediterranean partnership around eleven thematic sessions ('working fora') extensively reflecting social, economic and cultural dimensions of co-operation. Many fora addressed issues related to research, technology and higher education. The working groups that focused most directly on these issues were the ones dedicated to 'Technology and co-operation' as well as 'Universities and research'. In addition, the forum on 'Investments' spoke much about educational development and co-operation. Due to limited space and many similarities between the fora, I shall only give an account of, and attempt to analyse, the discussions that developed in the first two fora. The overall aim behind this is to unravel the way Euro-Mediterranean RTE co-operation was conceptualised and, moreover, to understand such a process as a region-specific version of more general trends.

From the methodological point of view it is important to highlight the fact that the sessions of the Civil forum represented different actors and interests of significant segments of civil society in the Northern and South-Eastern Mediterranean. Actors from, say, the business or university world, have specific and often contrasting ways of conceptualising and articulating phenomena, that is to say, they have their own ways of 'seeing' and interpreting meaningful facts about the world, and represent norms according to the way they are accustomed to organise their own professional activities.

It is important to delve a little deeper into this methodological point by focusing on the forum dedicated to 'Universities and research'. This workshop gathered together representatives from the academic world in the region. Of 91 participants, an overwhelming majority came from European universities, with only about ten coming from North African or Middle Eastern universities and research institutes. There were also experts from the European Commission and key personnel from the Mediterranean university networks (the Community of Mediterranean Universities and the University of the Mediterranean) as well as a few Med-Campus co-ordinators from a number of European universities. This forum, therefore, was made up of very experienced people reflecting a high level of expertise in Mediterranean research and university co-operation. Compared to the official rhetoric of the Barcelona declaration, the focus on what actors have to say about the concept of co-operation can lead to a more concrete analysis of the promise and pitfalls of co-operation in the region.

The report of the Civil forum meeting in Barcelona (Fórum Civil Euromed 1996), which is used as a source (and to which I shall refer only by page numbers), is comprehensive and written with care. It is clear, however, that the report could not possibly mirror every voice that was raised during the discussions at the fora. Rather, it reflects the organisational logic that underpinned the meeting, as well as the thematic and procedural choices and interpretations made by the co-ordinators and secretaries in relation to the discussions as well as to the

conclusions of each session. As with any other well-organised meeting, the Civil forum and its report were produced in a specific way, and such a production cannot be strictly separated from the official results of the conference.

Technological cooperation

'The Mediterranean must plot a path towards tomorrow's information society - that takes into account the realities and necessities of the region - as the rest of the world is doing. Geographic proximity will only be converted into vital cultural and economic proximity when there are communications structures and infrastructures that make it possible, and society has integrated this technology into its culture.' (Fórum Civil Euromed, 1996: 119)

'Intensification of Euro-Mediterranean exchanges and access to the nascent information society will be facilitated by more efficient information and communication infrastructures.' (Work programme of the Barcelona declaration)

As the above quotations suggest, the point of departure in the technology forum is the importance of new information and communication technology in a process of transformation towards the knowledge and information society. Like the Barcelona declaration and its work programme, the forum takes this socioeconomic and cultural scenario as a common challenge for the Euro-Mediterranean region. Moving to a more operational level, the forum emphasises that the success of supranational co-operation will depend on the will and ability of partners to agree on specified common targets for co-operation activities (p.120). Those targets and suggestions of concrete projects were produced mainly by actor-specific views of businesses in telecommunication and health technology. Of 97 participants, 15 came from Arab partner countries.

In specifying the crucial role of telecommunications in the Euro-Mediterranean transformation towards the information society and ways to institutionalise co-operation in that frontier of new technology, the forum refers to the same priority areas as those highlighted in the Barcelona declaration: regulation and standardisation of telecommunication networks, regional infrastructures and their connections to European networks, and access to services in the most important fields of application (p.122). This similarity demonstrates the fact that, concerning information technology co-operation, the forum and the Barcelona framework represent the same agents or at least a common frame of thoughts. However, the Civil forum discussions permits us to get a much more comprehensive view on that frame. The specific proposals for developing the Euro-Mediterranean infrastructure in telecommunications arose from two basic issues: the highly uneven development of the infrastructure and ways to promote joint activities among all relevant actors. The key question was the latter one – namely the efficient institutionalisation of co-operation. It was the topic in which the technology forum made both sophisticated conceptualisations and relevant concrete recommendations.

'Through the proposals for concrete action the forum aims at creating co-operation mechanisms which will ensure continuity, systematic evaluation, and realisation of long-term objectives. This was the idea in suggesting, among other things, the development of Mediterranean telecommunication partnership and preliminary platforms for co-operation which could make proposals for common technical standards, the interoperability of networks, and co-operation in research and technical development strategy or, on the other hand, deal with broader conditions of co-operation like liberalisation of markets' (p.125).

For the technology forum, the institutionalisation of Mediterranean cooperation is a long-term and gradual process (pp.129-130). At first, it is necessary to have personal contacts which will help to build up mutual understanding and confidence between the participants and future associates (as the technology forum remarks, the Forum Civil Euromed had this very function). The next step is to identify areas of common activity and acquire detailed information on the partners as well as the competitive advantages of each of them. Only on this basis is it possible 'to establish the goals of co-operation, in order to work cooperatively in the definition, realisation and evaluation of the project' (p.130).

Concerning services and applications, the thoughts of the technology forum were focused primarily on human resource development and its essential role in the development of an information society in the southern and eastern Mediterranean. In addition to that, the issue of socio-cultural responsiveness was regarded as an important one. The forum felt that the heterogeneity of the Euro-Mediterranean region (i.e. the technological development gap) should not only mean the simple needs of technology transfer but a much broader reflection process and evaluation of differences which would enable the creation of genuine networking of people and organisations. In developing education and training in information technology, it was vital, according to the forum, to take into account the specialties and experiences of all partners and encourage multi-disciplinary and multi-institutional association projects (e.g. between universities and technological innovation centres). The forum also made (pp.126-128) many concrete proposals concerning the use of information technology in education and training at all educational levels, hence promoting a broad societal basis for understanding technological innovation.

The technology forum emphasised that technological systems cannot be transferred to different socio-cultural environments without adequate cultural awareness and expertise. By highlighting this point, the forum underscored its agreement with the criticisms that have often been made regarding technical development aid. Several instances have shown the extent to which Western expertise has failed to bring about long-term development in social, economic and technical infrastructure unless there was a strong collaboration with local actors, and unless the latters' cultural knowledge was respected. Such an approach is very much in line with the perspectives adopted by structural dependency theory, which states that technology transfer carries with it the transfer of the socio-cultural codes that underpin it (Morehouse, 1978/79; Rahman, 1978/79). If this is not taken into account, the friction of different socio-cultural frames will destroy or lessen the continuity of co-operation and its overall results.

This wisdom was constitutive of the proposals of the technology forum concerning co-operation in health technology (pp.134-135, 138). The use of (European) knowledge and expertise in the development of medical services in the South presupposes the close participation of local officials. According to the forum, it is not enough to transfer medical technology and models of evaluation of medical services. Rather, it is also necessary to promote the relevant cultural values that go along with them. This was operationalised through a proposal which aimed at organising exchange of experts and training for medical service officials in the South.

Despite the thoughtful manner in which the institutionalisation of co-operation was conceptualised at the forum, it can still be said that the model adopted betrayed cultural asymmetry. Socio-cultural responsiveness and partnership with local actors is needed not only to enable the transfer of technology as such, but also to adapt its necessary cultural frame to local environment. The best agents of this acculturation process are not the Western consultants but the local people themselves. They can be encouraged to conceptualise the conditions of cooperation in a socio-culturally reflective way and, thus, promote long-term structural institutionalisation and continuity of co-operation.

The structural acculturation and institutionalisation of partnership is a highly critical issue for the success of the Barcelona process. For the technology forum the previously implicit aim has now been made explicit - it is the scientific and technological culture and the efficient institutions that support such a culture that must be transferred, and not merely their products. The development of RTE capacity and a new kind of comprehensive culture of innovation is a principal

instrument in the society that is oriented towards information, and which is in a process of transformation towards a neoliberal framework. In the end, however, we could ask: how has this scenario of meaningful reality been chosen and are there any alternatives in realising it?

University and research cooperation

The highly academic university forum is self-interested enough to underline the essential role of universities in the social and economic development of a knowledge society. But under the surface there seems to be some uncertainty about the identity of universities in the increasingly demanding environment they have to operate in. As we know, universities have traditionally been seen as autonomous and self-organised communities of scholars in which teachers and researchers have great freedom to focus on seeking new knowledge without outside demands of immediate practical applications. Up to the recent past, it was sufficient for society and state - as major patrons of universities - to believe that academic learning and scientific knowledge were useful in the long run. Although this image of the university does not reflect the actual situation and is – as a reflection of reality - rather more of a myth, it is not wise to deny its effects on the thinking of academics. Neither is its normative relevance and continuity to be underestimated.

In raising this issue I want to highlight the actual challenges and difficulties that must be faced to find a well-functioning balance between traditional elements and the modernisation tendencies that surround universities. The uneasy transformation from the more or less traditional university concept to an innovative and entrepreneurial one is a global trend and it was the major frame of thought at the Civil forum as well. The basic question of the university forum was: how does one institutionalise an innovative university in the Mediterranean south and, additionally, how does one organise co-operation policies and practices that promote this aim? This is a special case of a more widespread need to find a balance between traditional university structures and new demands between the local and the global.

As with the technology forum, the problems of the southern university institutions and research work as well their backwardness in relation to the current European norms was a main issue behind the co-operative thinking of the university forum. How these problems were interpreted has a crucial meaning for the conceptualisations of Euro-Mediterranean co-operation of higher education and research. Thus, it is reasonable to focus first on this issue and then move to the second part of analysis concerning the forum's thinking about institutionalisation of university and research partnerships.

Before dealing with that, it would be useful to clarify the issue of the 'europeanisation' of the concepts of university co-operation. Although a relatively small minority of participants came from Arab countries, we cannot claim that the thinking of the forum was totally organised by European perspectives - that would be tantamount to saying that the Arab participants did not have had any significant impact on the ways problems and proposals were interpreted and articulated. On the contrary, it is my belief that Arab perspectives did have a constitutive effect on the conclusions of the forum, particularly by virtue of their first-hand experience and knowledge of academic structures and cultures in the South. However, this does not deny the importance of the European and global trends in the discussions at the forum. It was clear that the referent and basis for an interpretative consensus during the discussion was the idea of the modernising university, one steeped in a culture of global innovation. As such, the academic forum worked completely in the spirit of neoliberal structural modernisation typical of all the Barcelona framework. Therefore, when speaking about the modes of decentralised co-operation in research and higher learning, the forum states:

'All these actions should be conducted with the objective of modernising the economic and social structures of the southern Mediterranean countries, increasing their capacity for innovation and their competitiveness and improving their possibilities of adaptation to the conditions of the world market.' (p.166)

The modern innovative university – or rather, a visionary construction of it produced by recent discussion about reform of higher education – worked as a frame of reference of the university forum reflecting mainly the consensus of those of 'us' in the North. The conceptualisation of the problems of 'them' in the South can bee seen as the other side of the coin. Those features in the southern universities which will not suit 'our' norms are easily interpreted as 'problems'. It is then possible that the problems are not conceptualised in relation to the sociocultural environment from which they hail. Rather, the difference as such may sometimes give a sufficient reason to the specification of what is, indeed, a 'problem'. This tendency has been referred to as 'otherness' in certain discussions of the relations between European and Arabic-Islamic cultures.

From the modernisation perspective adopted at the forum on universities, the strict dualism between northern and southern universities appears as essential and constitutive of the discourse. Although the northern universities (i.e. 'our' institutions) evidently have a long way to go in developing their practices towards an innovative university culture, the critical eyes of the forum looked at the failings of the southern university institutes alone:

- Their structures of action have not been sufficiently modernised.
- Their resources are still poor.
- They are too closed in relation to their own societies as well as to universities abroad.
- They have been obliged to fight problems produced by a one-sided policy of democratisation and massive expansion.
- Their quantitative explosion has happened mostly without clarified and internationally up-to-date picture of the mission of higher education in society
- The performance of their research activities has been low, the research has not given enough support to teaching and, moreover, the studies has been oriented thematically too much to the internal issues of their societies or culture at large especially in the social sciences.
- They have worked without a co-ordinated research policy and, as a result, the research work has not focused on societally relevant topics.

This interpretation of the problems in universities and higher education policies of the South is used as a basis for legitimating the forum's thinking about co-operation, and the strategy for institutionalising it. We may tentatively ask how informative this summary of problems could be. The picture of the problems is supported by the evidence of those reasonably rare (English) research reports which have been made concerning Arab research and science policy or higher education. They have regularly produced very similar conclusions about the rapid expansion of university sector, the lack of societal relevance, the inefficient use of the academic labour force, and so on (El-Sanabary, 1992; Massialas and Jarrar, 1983, 1987, 1991; Talbani, 1996; Tibawi, 1972; Salmi, 1992). On the other hand, the list of problems does not illustrate apparent successes in the educational policy of many Mediterranean Arab partner countries. For example, the democratisation and expansion policy of higher education in Jordan has worked very successfully for many years, when the surplus of educated people found jobs in the oil-producing neighbouring countries (Roy and Williams, 1992).

All in all, the massive quantitative expansion of universities in the Arab countries is, despite its shortages, a result of conscious efforts to ease access to higher learning. Without such a policy, scientific, technological and educational capacity would be much lower today. As Antoine Zahlan, the prominent researcher of Arab science and research policy, had already strongly emphasised in 1980, the main problem is not the lack of scientific capacity in Arab societies but, rather, more complex problems concerning the societal roles of science in them (Zahlan, 1980). If the massive growth of the university sector in Arab states (Qasem, 1995) before and after 1980 has not been used enough for the benefit of those societies, this is not only an issue of structures of higher education or science

policy but, to repeat, a larger societal question. The participants of the university forum surely knew it, but this point of view was not presented clearly enough in the forum's report. That is why it can easily give the reader an overly one-sided picture of the Arab university sector.

Like the forum 'Technology and co-operation', the forum 'Universities and research' presented a highly developed strategy for institutionalising the Euro-Mediterranean co-operation in its actor-specific fields of operation. The first part of the strategy dealt with higher education and the second one primarily with university research and policy of research.

In the task of programming higher education co-operation, the forum basically expressed the view that the duty of the European partners is to serve the southern universities in modernising their organisation and curriculum, and in developing educational systems which are able to follow (and promote) current economic and social changes. The following proposals have been presented as concrete ways to realise cooperative interventions (pp.168-169):

- Establishing European universities in the Mediterranean region.
- Offering aid to start specialised studies in the most relevant disciplines.
- Increasing the admission capacity of European universities to Ph.D. students and young teachers from the southern Mediterranean.
- Co-operation in the design of professional training structures that suit the needs of their businesses.
- Helping southern countries to share their educational resources by increasing mobility of students and professors in South-South and North-South direction and by recognition of diplomas and curricula.
- Creating centres of excellence for the best students of the Euro-Mediterranean region.
- Stimulating distance learning and information gathering of the teaching in each countries in the South.

As with the forum 'Investments', the institutionalisation of co-operation in higher learning is conceptualised as an issue of structural harmonisation in keeping with the newest trends towards a more occupationally-oriented policy. Although the norms of this policy emerge from ongoing discussions on university reform in the developed world and, hence, have been produced in certain economic and sociocultural contexts, the shift of contexts in moving from North to the Mediterranean South does not seem to be the subject of serious reflection (despite some notes on a need for that). As a result, the forum's policy of co-operation appears to be quite eurocentric and globalistic.

It may be argued that the structure of the forum, made up as it was of mainly European and pro-modernisation élite representatives of Arab universities, can partly explain the consensus in the forum about the relevant facts, concepts and norms of co-operation. This is not to deny the relevance of the structure and the validity of the forum's knowledge base as such. Rather, it is an effort to understand why this interpretative consensus was possible and why other, different opinions and 'truths' failed to emerge. In other words, the actual aim is not to deny the value or legitimacy of the modernisation stance but to ask if there could be other kinds of thoughts which are also important for the institutionalisation of co-operation. This remark may be applied to the research policy dimension as well.

It is evident that a country's science policy, together with the financial backup committed to it, can have a significant effect on the research that is carried out, including the topics that are chosen as a focus and the development of the infrastructure that is necessary to support scientific activities. This is the reason why the science policy dimension has been considered to be fundamental for the institutionalisation of co-operative structures in the context of European Union and in the Mediterranean region as well. The quote below will summarise the university forum's conception of the institutionalisation process and the role of research policy in it:

'To participate in the development of research on the southern shore also implies increasing European means in the region. This could be achieved, as is being demonstrated at the present, thanks to the setting-up of Euro-Mediterranean networks. However, as the debate reflected, trans-Mediterranean scientific research should be institutionalised in order to assure co-operation and in this way achieve overall continuity and coherence, so necessary in the field of the accumulation of knowledge.

Moreover, this institutionalisation effort could favour a beginning of a scientific policy in the southern countries. This means the implementation of a group of coherent projects in the fields that approach social problems, such as...' (p.170)

The forum's proposals concerning research policy aimed, among other things, at widening the thematic and geographical perspectives of studies and deepening the theoretical level of basic research. More specifically, the forum underlined the fact that studies in southern societies should go beyond the description of those societies and develop conceptual tools whose validity went beyond the geographical area they referred to. The forum also thought that Euro-Mediterranean networks could encourage the researchers of the South to take up the whole Euro-Mediterranean region as an object of research. Moreover, the Euro-Mediterranean networks of fundamental research and the favouring of their localisation in the southern countries also suggested ways to develop the scientific

capacity towards international standards and to prevent brain drain (pp. 170-171). As the forum itself puts it, '...in this way co-operation in research matters could advance towards the sharing of research objectives, methods and means within the most varied ambits of the applied and fundamental sciences'. In other words, this was to be a strategy to expand the contact area of researchers through giving more emphasis to the horizons of the common Euro-Mediterranean scientific space.

As it has been repeatedly stated, the recommended ways to promote cooperation between Euro-Mediterranean universities and scientists are basically, and rightly one might add, focused on the institutionalisation of partnership. 'Institutionalisation' has a specific meaning in this context. It refers to the aim to create sustainable modes of co-operation through which the suitable infrastructure and culture of higher education and research work in the South can be developed as a long-term process. What is important to note is that the policy is not to set up unwieldy formal structures but rather to create a flexible co-operative network management with capability for co-ordinated activities and with enough continuity. The opposite would be *ad hoc* projects without a systematic policy of co-ordination and without taking long-term objectives and results seriously. In the latter case, co-operative projects tend to only bloom during a period of financial support, with very little tending to happen after that.

It is very easy to agree with the university and technology fora that flexible institutionalisation is the basic condition for successful co-operation and that it is necessary if the overall targets, whatever these may be, are to be effectively reached. Moreover, the awareness of - and sensitivity to - the socio-cultural realities of the local environment is evidently one of the crucial presuppositions for long-term partnership between North and South. It is noteworthy that the 'technocratic' technology forum as well as the forum on 'Investments' led by representatives from the business sector took this last issue more seriously than the university forum did, despite the fact that the latter represented what it itself referred to in its final report as the 'humanistic' tradition. Despite some differences, all three fora clearly recognised both managerial efficiency and sociocultural responsiveness as key institutionalisation strategies leading to mutual benefits of co-operation in research, technology and higher education. There remains, however, one critical issue: the nature of and the basis for this consensus.

Conclusions

Certain theoretical aspects have been essential in writing this article about the institutionalisation strategies of scientific, technological and educational cooperation in the context of recent Euro-Mediterranean relations. For example, I chose to review ongoing changes towards a real and normative vision of the global information society as well as changing RTE interaction patterns between North and South. The new generation of the EU's multilateral RTE cooperation essentially reflects those general trends. The institutionalisation strategies have been strongly based on the information society oriented vision of transformation towards a global economy and society.

Despite the usefulness of explicating linkages of Euro-Mediterranean RTE cooperation and more general trends, this may not be a significant result as such. Otherwise the conceptualisations and institutionalisation strategies of Euro-Mediterranean partnership programme and participants of Fórum Civil Euromed, would not be well-informed about the changing structures of contemporary world - which is naturally not the case. What I would like to summarise and discuss a little further in this last section is the essence and nature of socio-cultural responsiveness in the institutionalisation strategies of RTE partnership.

It is clear enough that the Euro-Mediterranean cooperation framework reflects a sophisticated cooperation policy. Instead of transferring technology and giving financial aid as such, the aim is to transfer efficient infrastructures as well as a culture and policy of science, technology and higher education. In this framework, RTE cooperation inevitably needs a basis of broad socio-cultural understanding and, hence, more genuine co-operative partnership with local actors. Giving more space for local expertise and actors representing various civil society segments is really an essential strategy (and not only a rhetorical one) for the effective institutionalisation of partnership.

Concerning the nature of RTE partnership and the informative consensus behind it, the question arises as to how broad a letigimation basis exists among civil society actors in the Arab countries. We may ask, for example, what is a concept of an Arab society in this case. As we know, these societies have often strong internal divisions of opinion. The discussion about RTE cooperation could also be widened to include more traditional aspects of civil society - such as the university and science community - which may be critical of Western ideas about science and education and which may not be so eager to follow the newest trends (e.g. intellectual discourse about islamisation of knowledge and science). Despite probable differences between frames used, there could also be the space to strengthen the legitimacy and knowledge basis of co-operative strategies.

Widening the scope of civil society partnership may be highly important for the purposes of the institutionalisation process, and mutually beneficial in the long run. In that case the policy could move to a deeper and even more conscious level of structural modernisation by seeking sustainable solutions to the classic tensions between the modern and the traditional, as well as between the global and the local. Cooperation is therefore not necessarily conceptualised as a process of modernisation of southern universities, which are supposed to diminish their development gap according to universalised norms of global trends. Instead of that, the policy of institutional modernisation would go beyond the old historic model of normative acculturation, which has mostly happened without deep consciousness of the nature of the structural asymmetry they represent (Tibi, 1988). In this position, institutional modernisation will neither be realised as an imitation of European (global) norms nor as an uncritical rejection of them. This would mean, for example, the need for more comprehensive knowledge about the traditional structures of science higher education in Arab countries and in their societal relations (cf. Gottstein, 1986).

As we have seen, the notion of an innovative university in the Mediterranean South is generally in congruence with more general trends concerning a globalising world and changing patterns of scientific, technological and educational interaction. In that sense, the innovative university may be a relevant aim both from the European and the local socio-economic perspective. However, a heavy orientation towards eurocentric or globalistic frameworks can be counterproductive. Broad and genuine civil society support and regionalism, which are not solely organised according to current global trends, may help to go beyond an 'uncritical dualism' and find a balanced way to facilitate co-operation in the spirit of mutual partnership. One of the major contributions which 'innovative universities' can make in to the development of cooperation policies in both the North and in the South is to cultivate their traditional responsibility for acquiring a broad knowledge basis for 'truths' in society and – what may be an even more demanding and sensitive issue for scholars – about themselves as 'mirrors of society'.

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