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Setting-up an international science partnership program: A case study between Portuguese and US research universities



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ABSTRACT

International partnerships between universities are expanding and diversifying worldwide. Policymakers have understood that an active strategy of partnering national universities with world-class universities can bring socio-economic returns, and promote change. This article analyzes the background and logic behind the design and early development of an ongoing international partnership program established between a medium-sized European country and three prominent US research universities in 2006. Our findings show that political will, combined with an academic background and experience, have enabled the policymakers to learn from other international partnerships, and shape the involvement with the US universities. The role of "champion" policymakers was critical to the establishment of the partnerships before and during the initial period. Throughout this process the role of previous science policies and networks were found to have leveraged national research groups to collaborate and benefit from the IPPs, and supported long-term research collaboration ties with US universities. Portuguese faculty at US universities mediated the interaction between US and Portuguese academics and policymakers, and promoted the partnerships within their universities. Finally, the policymaker's focus on institutional competition was able to draw on the competitiveness of academics and institutions on both sides of the Atlantic, encouraging individuals and institutions to increase their involvement.

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1. Introduction

In an increasingly global competitive environment, universities are diversifying and expanding international collaborations to strengthen the scope and quality of their research and teaching activities (Wilkins and Huisman, 2012). Governments that understand the benefits of having national universities embedded in global knowledge networks usually support this process and take an active role in promoting international collaboration between universities. International collaboration is often motivated by objectives to modernize universities and promote national competitiveness (Gornitzka et al, 2005). Some countries also capitalize on international students who pay higher tuition fees (Turpin et al, 2002) and benefit from brain gain and brain circulation phenomena (Cantwell, 2011; Wildavsky, 2010; Middlehurst, 2001). Collaboration arrangements have been implemented in the drive to internationalize higher education and thereby respond to globalization. These include alliances between universities offering twinning, franchising, dual and joint degree programs, virtual and branch campuses, and the creation of knowledge hubs (Knight, 2011, 2004; Altbach and Knight, 2007).

Countries in developing/intermediate stages of development tend to invest heavily in these collaborations expecting social and economic returns from the research universities' contribution to their science, innovation and education systems (Mok, 2008; Mazzarol et al, 2003). Yet, not all of these collaboration models have been wholly successful and there are several known cases of failures (see Ross, 2008; Healey, 2008). In this framework, policy choices for internationalization matter because expectations, risks and uncertainty are high (Wilkins and Huisman, 2012). For governments of developing/intermediate countries, public resources, i.e., taxpayers' money, need to be allocated carefully and it is often politically problematic to explain their allocation to foreign and already affluent universities. This becomes difficult if the international collaboration fails, and disastrous if it fails in countries where public funding is scarce (Becker, 2009).

Risk and uncertainty also condition the choices of top research universities. They tend to choose partners with judicious assessments and calculations (Wildavsky, 2010). Although the financial drive in these partnerships for these universities is of relevance, other important issues need to be factored in. Collaborations provide privileged access to new pools of student recruitment and give faculty greater access to international exchanges, including opportunities for long-term

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collaboration prospects (Ayoubi and Al-Habaibeh, 2006). These represent benefits for many universities but inevitably the faculty needs to support these initiatives (Wilkins and Huisman, 2012). Other selection criteria include training skilled labor and access to national, regional and local markets. However, collaboration failure may lead to a loss of resources and dents in their global prestige (Healey, 2008).

It is in this context that the International Partnership Program (IPP) between Portugal and three top US research universities is relevant. The IPP is a strategic collaboration between the Massachusetts Institute of Technology (MIT), Carnegie Mellon University (CMU), the University of Texas at Austin (UT-Austin), and a medium-size, resource-limited country, located on the geographical and economic periphery of Europe. At the time the international partnerships were being considered the country had low investment in science, a poorly qualified labor force, and a higher education system facing a number of challenges (Heitor and Horta, 2012), albeit with an ambitious agenda for developing its scientific, economic and education systems (Heitor and Bravo, 2010). Portugal also had limited public resources for attracting foreign partners, lacking a priori the financial drive as a major reason for creating a research hub with renowned research universities.

In principle, this scenario made Portugal, and its universities a less attractive option for any major research university seeking to establish partnerships overseas. This raises the question: how did a country in an intermediate stage of development with the aforementioned characteristics convince three leading US research universities to engage in broadly defined international collaboration? We address this main question by analyzing the IPPs concerning: 1) their background and 2) the design and definition of the partnership. This analysis pinpoints salient features in the decision-making process for the IPPs, thereby making a contribution to the literature on how strategies are defined, developed and pursued within the general context of the globalization of higher education.

This article looks at the genesis of the IPPs as a case study, focusing on the period leading up to the establishment of the partnerships in 2006. It is based on extensive interviews with the major policy actors involved in the decision-making process in Portugal and the US. To maintain anonymity we have not disclosed the identity of the 15 interviewees, but they included government policymakers, officials, university managers, program directors, and key faculty involved in the leadership and management of the international partnerships. The interviews were conducted and recorded between September 2010 and May 2011. The focus is on the policymakers' context, motivations, decisions and actions at different stages in the early decision-making process. The story of the process of establishing the IPPs involves probing the micro dynamics and determinisms of specific policy and program decisions. The participants' recollection of pivotal moments in the story of the partnership is crucial in the reconstruction and identification of the fundamental features of the process (Eddy, 2010). How the story is told with regard to the IPP mission, the choice of partners, scientific fields, and actor involvement are the key.

The article provides two main contributions to the literature. The first relates to the social conditions that made it possible to bring the partnerships to fruition. These include political will (the direct involvement of the Prime Minister in highlighting international partnerships as a priority), the history of Portuguese doctoral students abroad (including in the US partnership universities) mostly funded by previous public science policy initiatives, the role of the Portuguese faculty at the US universities, the hybrid "academic-politicians" in the government, and an understanding of the motivations of faculty at the US universities.

The second is an explanation on how certain implicit design features of the partnerships became important. These include the choice of scientific priorities in the IPPs and the fostering of institutional competition within the partnership among the US and Portuguese universities that promoted the networked nature of the partnership. Other features include the rationale behind choosing US rather than leading European universities for the partnership, and the introduction of research

projects and faculty exchange programs to foster the dynamism of the partnership, when it became clear that the educational programs alone could not sustain the momentum.

2. The International Partnership Program: background, characteristics, and strategic aims

In November 2005, the Portuguese government, led by José Sócrates, implemented its Technological Plan as a strategic pillar in the knowledge economy. After an initial period of discussion within the government and with civil society stakeholders, the plan, influenced by the Lisbon Strategy, was presented as the backbone of the national program for competitiveness, growth and employment. It had three main goals: 1) increasing formal qualifications of the Portuguese population for the knowledge society, 2) reinforcing national scientific and technological capabilities, including promoting R&D activities and the role of the business sector in the creation of qualified employment, and 3) fostering innovation with policies that would help Portuguese firms adapt to the challenges of globalization (Plano Tecnológico, 2005).

The plan was expected to systemically impact the Portuguese economy and society by helping change an economic structure characterized by low formal qualifications and geared towards low-cost production that was increasingly facing stiff competition from Eastern Europe and Asia (Heitor and Bravo, 2010; Teixeira and Fortuna, 2004). Its objectives were to make for a more sustainable and adaptable economy to cope with a complex and unpredictable global economy. From the government standpoint, these objectives demanded greater investments in intangibles, human capital, and institutional synergies, and promoted a reduction in external energy dependence to foster productivity, added value and flexibility. Social cohesion, employment and environmental quality could be assured for the future with public-led investment policies (Plano Tecnológico, 2005).

The IPP was part of the Technological Plan and headed by the Ministry of Science, Technology and Higher Education (MCTES). The IPP was defined as a development project that included capacity building for institutions, research and graduate education, mobility and braincirculation, and national engagement with industry. Strong emphases were placed on quality assurance mechanisms with regular external reviews to assess activities undertaken and provide guidance for improvement (e.g., CMU–Portugal Program Final Report 2006–2011; CoLab Annual Reports; MIT–Portugal A strategy Reexamined; External Review Committee Report, 2009). These prospective elements can be seen within the activities of each individual partnership, framed as hubs since they are a "planned effort to build a critical mass of local and international actors strategically engaged in education, training, knowledge production, and innovation initiatives" (Knight, 2011: 233).

In terms of the higher education system, the IPP was to serve as an instrument to promote the internationalization of Portuguese universities (Patrício, 2010; Horta, 2010), and also to sow the seeds of reform in Portuguese universities by: 1) fostering university-based research in national collaboration networks in a country where the cooperation among national universities was limited and 2) encouraging university-industry exchanges by introducing cooperation between the Portuguese universities, firms and local governments. The IPPs with MIT and CMU were signed in October 2006, and the UT at Austin in March 2007, as five-year collaborative agreements with the Portuguese state funding agency (Fundação para a Ciência e a Tecnologia, FCT). Resolution of the Ministry Council, nº 132/200 [RMC] Republic Diary, 1st Series, nº. 198, 13 October 2006.

¹ Final report 2006–2011 http://www.fct.pt/apoios/cooptrans/parcerias/docs/CMUPortugal_External_Review_Committee_Report_2009Sep.pdf.

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