

THE BENEFITS OF INTERNATIONALIZATION IN HIGHER EDUCATION. THE EXPERIENCE IN PORTUGUESE POLYTECHNICS

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Abstract. *The European Commission [4] states that each Member State should adjust its national strategies to enhance its potential and international presence and attract talent. Account must be taken of both the national skills shortage and the lack of intercultural skills and the knowledge and research needs of their developing partner countries.*

Globalization is a process of great expansion, irreversible and with deep implications in all areas. This process will result in new opportunities and new challenges for the next generations of students and teachers looking to develop in an increasingly interdependent context.

The Portuguese polytechnics, through the implementation of a concerted internationalization strategy between the institutions, have already achieved significant results in terms of international affiliations, international student and teacher and non-teaching staff mobility, joint programs and degrees and joint research projects. The internationalization of Portuguese higher education institutions (HEI) in recent years confirms the trend towards globalization of higher education.

Keywords: *Internationalization; Higher education; Portuguese polytechnics; International cooperation*

1. INTRODUÇÃO

Building European and transnational networks of academic, cultural, scientific and business cooperation on a European and world scale are fundamental to the path of peace and cooperation [10]. The Erasmus program, existing for over 32 years, is an excellent example of this path, inspired by a culture of tolerance and multiculturalism.

During this period the mobility of students and researchers in Portugal intensified. In the last eight years the number of foreign students has increased by 119%, the number of PhD holders has grown by 74% between 2000 and 2010 and Portuguese scientific production has increased by thirty-five times in the last twenty-five years.

Assuming the inevitable globalization of higher education, if on the one hand there are new and diversified markets for HEIs, on the other hand we will see a significant increase in national and international competition.

The challenges will be different, we will be confronted with students with ambitious expectations, looking for applied, differentiating and quality contexts. Further pressure on resources can be expected to reinforce the need to increase the attractiveness of HEIs for students and teachers, which highlights new challenges in research and the opportunities for collaboration.

The Coordinating Council of the Portuguese Polytechnic Institutes (CCISP), in 2014, outlined a strategy and defined a demanding activities plan. The path taken has allowed to strengthen the internationalization of HEIs with very significant results.

2. HIGHER EDUCATION IN PORTUGAL

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2.1 Brief characterization

The Law of the Educational System of 1986 established the binary structure of the Portuguese higher education. In Portugal the organization of higher education has many similarities with the systems of other European countries, which have the traditional university subsystem and the polytechnics or universities of applied sciences. These are the alternative and complementary paths that Portugal offers to those who want to attend higher education.

As is well known, the evolution of the binary system has not been the same in all countries. In the United Kingdom and Australia the binary system, even in the last century, has come to an end. With this change to the unitary system part of the polytechnic institutions went to universities and the other part went through a merger process. In many other countries, despite eternal discussion, the binary system continues and is constantly changing. We have countries, such as Ireland and New Zealand, where polytechnics are now able to confer a PhD degree and the latter retaining the name of polytechnic.

We have been watching the drift of both subsystems. As regards [3], “we see vocational drift from traditional universities and academic drift from new universities”. Talking about differentiation in higher education, different missions, different courses and teaching methods is common to most countries. However, cases already reported here and others in which the discussion exists demonstrate that differentiation has lost some strength and has drifted towards institutional homogenization.

The evolution of the number of students enrolled is another indicator that also proves the positive evolution of the polytechnic subsystem. This is manifested in an indicator of increasing recognition by society of the quality of training provided in polytechnic education [9]. It should be noted that in the 2016/17 school year, 292.430 students were enrolled in public higher education institutions, 107.732 of which in polytechnic institutions and 184.698 in university institutions, thus representing the polytechnic sector 37% of the total of students enrolled in public higher education.

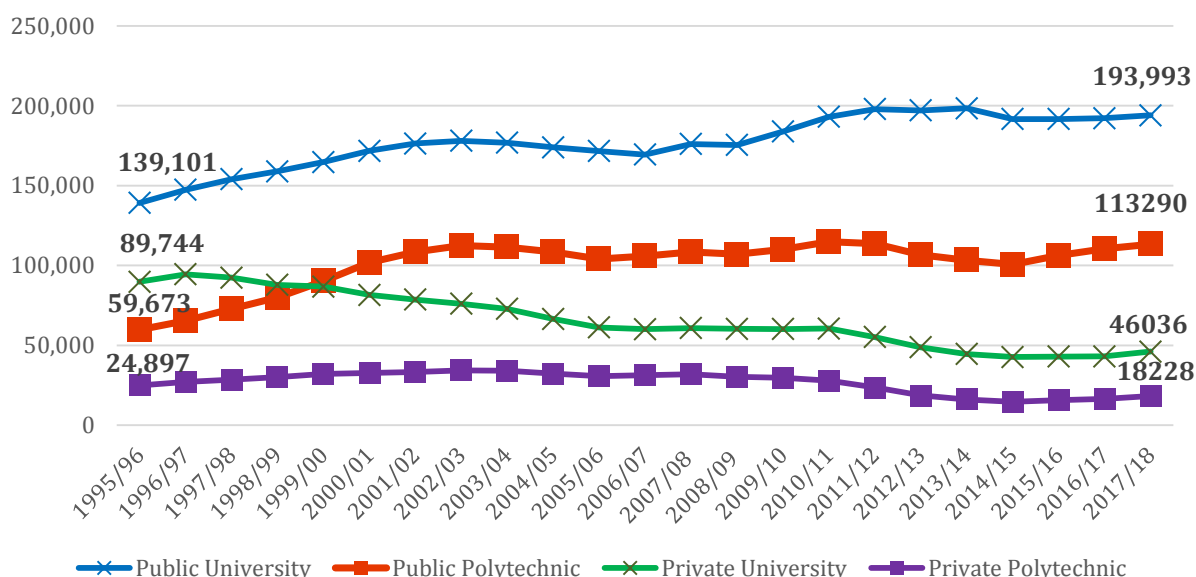


Figure 1. Evolution of the number of students enrolled by subsystem; Source: [5]

The Portuguese higher education network comprises 121 institutions, corresponding to 338 organic units, which are distributed by the university and polytechnic subsystems (public or private). However, it should be noted that public higher education comprises about one third of institutions and almost 60% of organic units [1].

The network of public university higher education establishments consists of 14 universities and 1 non-integrated university institute. To these establishments are added 4 university institutions of military and police sciences [6].

In Portugal, polytechnic education is provided in polytechnic institutes, in non-integrated polytechnic schools and in integrated polytechnic schools in universities. The public polytechnic education network consists of 15 polytechnic institutes, 5 non-integrated colleges, 2 military and police education institutions and polytechnic establishments of 7 universities (Azores, Algarve, Aveiro, Évora, Minho, Trás-os-Montes and Alto Douro and Madeira) [6]. The network corresponds to 27 institutions, 102 organic units, with presence in 45 municipalities in 18 districts and 2 autonomous regions.

Polytechnic institutions provide training at levels 5, 6 and 7 of the European Qualifications Framework.

Also the evolution of faculty qualification is impressive! In twelve years the number of teachers with a PhD degree has increased by around 500%, and currently more than 50% of teachers have a PhD degree and more than two thirds of teachers either hold a PhD degree or the title of specialist. If we consider teachers attending a doctoral program, we can predict that two or three years from now, two out of three teachers in polytechnic education will have a doctoral degree. It is not surprising that the qualification of the faculty, associated with the increasing research capacity installed, allows the Polytechnics to soon also be able to teach doctoral programs.

2.2 The impact of higher education institutions

Additionally, the socioeconomic impact of HEIs is observed as a very present theme in the literature, identifying a strong correlation between knowledge and economic growth [2]. According to the authors, it is through the knowledge acquired by individuals and companies that regions and countries overcome change, promote economic growth and create wealth. On the other hand, higher education is a source of knowledge that generates qualified people, promotes research and consultancy, and transfers results to society [7].

These works demonstrate, above all, the centrality of higher education in the development of regions and countries. HEIs play the role of driving the development of territories, disseminating new knowledge and new technologies.

According to the European Commission, higher education institutions contribute to regional development, sustainable economic, social and territorial cohesion (European Commission, 2007). Vossensteyn [11] also specifically emphasizes the contribution of polytechnic institutions to regional development, portraying these institutions as entities with a markedly regional matrix (both in terms of attracting and recruiting students, and their influence on the labor market of collaboration with the social partners), often with the role of stimulating /

supporting the local economy – eg. the Czech Republic, Finland, Denmark, Norway, Switzerland and Ireland (in the latter country these educate for local industry and commerce).

Also in a study involving twelve Portuguese polytechnic institutes [8], these institutions are recognized as important actors in regional development. The Portuguese higher education system comprises both Universities and Polytechnic Institutes, which face an increasing pressure to demonstrate that their presence has an impact on the surrounding communities contributing to their economic development. Moreover, this work portrait the diversity of the Institutes involved, not only taking into account their different sizes but as well as their socioeconomic and regional contexts. Results of this study show that the economic impact of HEIs ranged from 27 million euros to 172 million, which represents between 1.8% and 10.6% of the local GDP. In addition, the level of economic activity generated, for every euro of government funds, ranges from 1.7 to 4.7 euros. Moreover, these Institutes are, in general, major local employers and, therefore, its impact is even more significant in less developed and isolated regions; furthermore, they have a major role in granting access to higher education to young people that, without the presence of these Institutes in these regions, would not enrol in higher education.

3. THE INTERNATIONALIZATION OF PORTUGUESE POLYTECHNICS

In a global world, the study of the phenomenon of internationalization has to be a focus of reflection at all levels, particularly in an open country like Portugal.

The globalization of higher education has accelerated in recent decades and today internationalization is one of the strategic aspects of any higher education institution. Institutions are increasingly seeking to align internationalization with their mission by devoting more resources to it. Institutional policies for internationalization emerge that go far beyond mobility and education. Thus, since the 1990s, there have been several studies on the quality of internationalization, objectives, strategies and instruments. Assessing the impact of internationalization has received several contributions and has been a concern in several countries [12]. How to measure the success of internationalization and what indicators for this have been permanent challenges.

As already mentioned, in this path, higher education institutions worldwide have been reinforcing their internationalization activities, especially with regard to student recruitment at international level. The internationalization of the institutions staff and their research activities are also gaining importance.

We cannot analyze mobility in higher education without addressing European policies, in particular the Erasmus program. We know that it does not exhaust mobility flows, but it has a huge weight. In the last 40 years more than 4 million European students have had an international mobility experience. This is not strange to the Bologna process and the construction of the European higher education area. In Portugal there has also been a growing evolution in IN and OUT mobility, both for students and teachers.

Nevertheless, studies show that students' socioeconomic conditions continue to significantly influence inequality of access to an international mobility experience.

There is no doubt that international mobility puts pressure on the quality and attractiveness of higher education institutions.

Portuguese polytechnic education has been following this trend, having established cooperation programs with 83 countries and regions. Polytechnic higher education exchange programs involve the mobility of students, teachers and staff across more than 60 countries.



In 2016/2017 there were 11 734 foreign students in polytechnic education, 3211 were in credit mobility and 4809 in degree mobility.

Table 1. Number of students enrolled in polytechnic education of foreign nationality

Countries	2014/15	2015/6	2016/7
Brazil	1112	1541	2026
Cape Verde	1067	1239	1461
Spain	1042	1146	1195
Angola	744	806	799
Sao Tome and Principe	376	437	575
Poland	326	384	381
France	125	167	306
Italy	194	220	278
Turkey	205	199	238
Guinea Bissau	122	169	226
Ukraine	186	185	188
Romania	147	148	158
Lithuania	144	160	147
Czech Republic	117	126	139
Germany	116	118	137
Mozambique	107	133	128
Others	1144	1472	1676
TOTAL	8418	10122	11734

Fonte: [5]

Increasingly polytechnics are recruiting students under the international student statute. It is a clear bet by most institutions and is contributing to the internal change of the institutions themselves.

On the other hand, CCISP integrates several international networks representative of polytechnic higher education, namely:

- European Network of Applied Sciences Universities (UASNET).
- European Association of Institutions in Higher Education (EURASHE).

CCISP has signed a protocol with the Macao International Institute for scientific and technical collaboration, development of relations between Portugal and Asia, exchange of researchers and technicians, organization of conferences and exchange of publications.

It also established a Memorandum of Understanding with the Macao Polytechnic Institute to foster and develop teacher and student mobility between IPM and the CCISP institutions.

Also in Macao, CCISP signed a consultancy contract with the Portuguese School of Macao, with the support of the Government of Macao, to provide teachers in the areas of Portuguese, Mathematics and Science.

CCISP has signed a student mobility protocol under the Science Without Borders Program with CONIF (National Council of Institutions of the Federal Network of Professional, Scientific and Technological Education in Brazil). Protocols were signed within the scope of the recognition of degrees and graduations between the Brazilian Federal Institutes and the Portuguese Polytechnic Institutions.

The Declaration of Collaboration was also signed between the institutions of CCISP and the KRPOT (Conference of Rectors of Polish Technological Universities), in the context of

student, faculty and non-teaching mobility, as well as sharing publications and organizing conferences. Several annual meetings were held, alternating the venue between Portugal and Poland.

These partnerships at CCISP level paved the way for numerous bilateral cooperation agreements, which the polytechnic institutions were signing.

Polytechnic institutions now have a joint strategy for internationalization, relying on part of their action in a European-funded project that is delivering its results.

This networking culture, which has been transversal to all areas, is a strength of the polytechnic system and that also in internationalization provides significant benefits.

There are still difficulties or “obstacles” to the development of the internationalization policy of higher education that need to be answered, namely through the adaptation of some legal diplomas, the evaluation of joint courses, and a simplified process for obtaining visas for foreign students.

Hence, in 2015, CCISP considered it essential to create a true internationalization strategy for higher education that would address the following aspects:

- Promotion of the country as a destination for higher education strategically, in articulation with other entities, namely the Ministries of Foreign Affairs, Economy and Higher Education.
- Creation of a specific policy for Portuguese-speaking countries.
- Streamlined processes and legal framework for creating joint courses.
- Promoting greater involvement of embassies and consulates in the process of recruiting international students, notably through new processes aimed at streamlining and reducing visa issuance time for these students.

From the available data, the path taken by the polytechnic institutions in internationalization is already long! The results are already appreciable! Hope for the future is encouraging!

4. CONCLUSIONS AND BENEFITS

The results and benefits achieved with the internationalization of higher education institutions are many and diverse, going far beyond their specific mission.

We now enumerate only the most significant:

- Contribution to the spread of a global culture of tolerance and multiculturalism;
- Path of cooperation and peace;
- Contribution to European rapprochement and European integration (Erasmus Program);
- Building transnational networks of academic, cultural, scientific and business cooperation at European and world level;
- Enhanced student and teacher / researcher mobility;
- Expansion and recognition of production and scientific activity;
- Knowledge transfer in the context of international networks;
- Sharing good practices in the teaching and learning process;
- Development of an international environment in higher education institutions, particularly benefiting the resident community that does not make international mobility;
- Socio-economic benefit with impact on institutions and regions.

As mentioned, many other benefits could be mentioned. Given the above, it remains to be concluded that the internationalization of science and higher education is unavoidable and drives significant changes in global society.



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