

Science and Technology Parks in support of compliance with the Third Mission of Universities - a study at UPTEC, Portugal

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The mission of the universities has evolved over time: it began by focusing on traditional teaching, extended to academic research and currently, the contribution of these institutions is recognized to growth and socio-economic development. In the last decades, they have come to be regarded as key actors in wealth creation and cultural formation. The wide involvement of these institutions with industry and, more recently, with the community, has led to the creation of the Third Mission of Universities, which constitutes the dialogue between science and society (Vorley & Nelles, 2008, Predazzi, 2012).

According to the International Association of Science Parks (IASP, 2002), science and technology parks (PCTs) are expert-managed organizations whose main objective is to increase community wealth by promoting a culture of innovation and competitiveness of companies that are generated in higher education institutions. In this way, this research equates the PCTs as one of the instruments of operationalization of the Third Mission of the Universities.

These structures are currently regarded as a key vehicle for economic development at the regional and national levels and are often related in the literature to economic growth and job creation. According to Tecparques (2017), the advantages of PCTs include the creation, attraction and retention of skilled labor for its impact regions.

Despite the political-social consensus that exists around these structures, the scientific debate has not yet been able to establish a clear line as regards the evaluation of the impacts of its existence in supporting the Third Mission of Universities.

Given this shortcoming, this study had the objective of evaluating the relationship of graduated companies - the ones that have already concluded their relationship with the PCT - in understanding the capacity of this structure to promote the dialogue between science and society, as a result of support for entrepreneurship.

The University of Porto Science and Technology Park (UPTEC) was selected for this work, based on a study already carried out on this structure (Barbosa, 2014), as well as the group of graduated companies that, at the time of December 31, 2016, had completed their incubation connection during UPTEC's 10 years of operation. Thus, an online questionnaire survey was applied to a total of 51 companies.

Inspired by the methodology developed in the project 3EM - European Indicators and Ranking Methodology for University Third Mission, funded by the European Commission with the support of the Lifelong Learning Program, which sought to generate a comprehensive instrument to identify, measure and compare the activities of the Third Mission of Universities, the evaluation was focused on the dimensions of continuing education, technology transfer and social commitment (Carrión, A., et al., 2012). It was done in conjunction with the Balance Score Card (BSC) methodology of performance management, (Kaplan & Norton, 1997).

The data generated by this study were submitted to a univariate and bivariate statistical analysis, which aimed at quantifying the results of the incubation process and its relevance to the current state of the companies in the three dimensions evaluated.

This paper intends to contribute to the increase of the literature with practical applicability around the measurement of the impact of UPTEC in supporting the University of Porto, aiming to evaluate the activities of the PCT as a mechanism that drives the development of enterprises that add value to society, generate jobs, income and development in the region.

References

Barbosa, G. (2014). Dinâmica organizacional e de incubação do Parque de Ciência e Tecnologia da Universidade do Porto (Dissertação de mestrado não publicada). Faculdade de Letras da Universidade do Porto, Porto.

Carrión, A., et al. (2012, March). A new methodology for measuring third mission activities of universities. In Chova, L. G.; Martínez, A. L.; Torres, I. C. INTEND2012 Conference Proceedings. Paper presented at the 6th International Technology, Education and Development Conference, Valencia (1218-1223). Valencia: IATED

Kaplan, R. S.; Norton, D. P.(1997). A estratégia em ação: Balanced Scorecard. Rio de Janeiro: Campus.

Predazzi, E. (2012). The third mission of the university. *Scienze fisiche e naturali*, 23 (1), 17-22.

Soeiro, A. V. (2011). A Terceira Missão das Universidades: Indicadores. Congresso FEUP 2011, Porto.

Vorley, T.; Nelles, J. (2008). (Re)Conceptualising the Academy: Institutional Development of and beyond the Third Mission. *Higher Education Management and Policy*, 20 (3), 119-135.

TECPARQUES (2017). Apresentação. Retirado de: <http://www.tecparques.pt/quem.php>