

# Chapter 10

## Proximity and Cooperation for Innovative Regional Development: The Case of the Science and Technology Park of Alentejo

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### ABSTRACT

*Entrepreneurship and innovation are multidimensional phenomena, with many interrelated determinants. Innovation is also frequently associated with scientific and technological research. Since innovative entrepreneurship is vital for the promotion of social and economic development, policy makers have for long nurtured potential synergies between universities and enterprises. In the context of wider strategies for regional development, the creation of Science and Technology Parks is one attempt to tackle societal challenges such as boosting competitiveness, job creation or the development of lagging regions. This chapter focuses on the only science and technology park located in the Portuguese region of Alentejo and is organized in five sections: introduction, survey of the literature on proximity and cooperation for innovation, Park description and analysis of a questionnaire developed to assess the effects of membership for resident firms, and a set of conclusions and implications on proximity and innovation for low density converging regions.*

DOI: 10.4018/978-1-5225-1978-2.ch010

## INTRODUCTION

Entrepreneurship and innovation are multidimensional phenomena, with many individual and contextual determinants often thought of as being interrelated. Innovation is also frequently associated with scientific and technological research. Since innovative entrepreneurship is vital for the promotion of social and economic development, policy makers around the world have for long been nurturing potential synergies between universities and enterprises. In the context of wider strategies for regional development, public authorities have sponsored the creation of science and technology parks to help tackle societal challenges such as boosting competitiveness, creating jobs or fostering the development of lagging regions. Such parks are also a way of demonstrating that public investment in research developed by universities can be translated into valuable innovative uses. Universities, in turn, have been utilizing science and technology parks to foster the marketization of their research outputs, facilitating knowledge transfer and diversifying funding sources. The creation of science and technology parks is thus an attempt to institutionalize the mutually beneficial connections thought to exist between universities and entrepreneurs, and to link the research developed by academics and the innovative entrepreneurial environment required to climb the competitiveness ladder in knowledge-based societies. The link between the institutions that produce knowledge and companies, either in science and technology parks or via other mechanisms, is particularly relevant in regions of low economic and demographic density, as well as for small and medium-sized enterprises, which are more dependent on the external production of knowledge. Theoretically, these mechanisms for knowledge creation and transfer are strongly related, among others, with the perspectives of territorial development models known as triple helix and quadruple helix.

Science and technology parks first emerged in the United States of America (USA) in the 1950s, with the creation of the Stanford Research Park in 1951, and later progressively spread throughout the world. In Portugal, a country where European Union (EU) membership has not erased pre-existing regional asymmetries, the first science and technology park was established in the Lisbon region in 1992 (the Taguspark, in Oeiras). Today, the large majority of science and technology parks are situated north of the river Tagus, with the South having only three parks:

- The Parque Tecnológico da Mutela/Almada,
- The Centro Regional para Inovação do Algarve, and
- The Parque Científico e Tecnológico do Alentejo (PCTA).

The last-named is the focus of our attention in this study. Established in 2011, the PCTA is the only science and technology park in the low density region of Alentejo. It was created in partnership with regional higher education institutions, but is endowed with physical and statutory autonomy.

Our study is organized in five sections. The introduction is followed in section two by a survey of the literature on proximity and cooperation for entrepreneurship and innovation, focusing on the relationships between firms and universities in science and technology parks. Section three presents our case study, the PCTA, and section four presents the results of a survey by questionnaire developed to assess the main effects of PCTA membership for the park's firms. The last section concludes and draws some implications of proximity for innovation in low density converging regions.

In the fourth section, we examine the results of a survey by questionnaire conducted in 2015 by the PCTA on all its companies. The survey includes questions to characterize each firm in terms of:

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