Science Parks' Characteristics and Companies' Innovative Performance. Evidence from Finland

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Science and Technology Parks (STPs) are organisations whose aim should be to act as a (physical) trait d'union between research and industry, and to promote the competitiveness and the culture of innovation of their associated businesses and knowledge-based institutions (IASP, International Association of Science Parks 2002; OECD 1997).

Whether they managed to accomplish this (neither conceptually simple nor easy to perform) mission in practice remains an open question, as there are few systematic analyses of STP performance. All these studies, i.e. Monck et al (1988), Massey et al (1992), Westhead & Storey (1994), Westhead (1997) and Siegel et al (2003), but Löfsten & Lindelöf (2002) use variants of one single database and basically rely on the same type of indicators. Surprisingly enough, even if sometimes reaching different conclusions, almost all of them end up positively evaluating the STPs' performance.

Drawing on a wide literature, our research tries to, at least partially, answer the question of whether Science and Technology Parks manage to bridge research and industry. It does so by assessing STPs' contribution to the innovative performance of the companies located on their premises. Using patents as a proxy for the companies' innovative output (Griliches, 1990; Lanjow et al, 1998; Jaffe & Trajtenberg, 2002), we check if and to what extent Science Parks affect the patenting activity of their tenants. We do so convinced, as Monck et al (1988), that, in order to estimate the STPs' 'added value', one should highlight the characteristics and analyse the performance of those firms occupying Science Parks' premises.

Our study is based on an original database regarding the Finnish Science Parks and 252 companies located within their premises. It covers a 33 year period (Jan 1970 - Dec 2002).

The structure of the paper is as follows. We begin by briefly looking at the data (section 1) to then present the model (section 2), describe the variables used in the empirical analysis and the hypotheses made (section 2.1), show the estimates and comment on the results (section 3). Some robustness checks (section 4) precede the conclusions