

ABSTRACT

The last years, academic entrepreneurship through the creation of spin-off companies, represents an important technology transfer and commercialization mechanism of the potential valuable inventions in emerging technologies, such as nanotechnology. Since nanotechnology is mainly developed in Universities and Research Institutes (URI), it is very important to facilitate the ability to exploit the innovative and added value of nanotechnology into applications. However, knowledge on the favourable conditions for the transfer and exploitation of research results in nanotechnology from URI, is still limited. Thus the subject of the thesis, includes the study of the mechanisms for the transfer and exploitation of research results in nanotechnology from the URI. The research of the selected case studies that include european universities active in nanotechnology, an entrepreneurial university, spin-offs in organic electronics (an emerging sector of nanotechnology), greek spin-offs in nanotechnology and a greek lab in nanotechnology, concludes on the factors and the optimum conditions for the transfer and exploitation of research results in nanotechnology, through spin-off creation, from URI. Therefore, from the conclusions, the important role of national and URI policy emerges, as well as the way that these policies can be formulated in order to enhance academic entrepreneurship in nanotechnology. Specific, the conclusions provide suggestions also for the case of Greece, as an indicative case of a country who seeks to benefit from nanotechnology, while it's URI are in the initial stages of research commercialization through academic entrepreneurship. The challenges related to the exploitation of nanotechnology and organic electronics, through spin-off creation, emerge from the identification of its characteristics. The important factors that have emerged from the thesis, related to the creation and growth of the spin-off in nanotechnology and organic electronics, relate to: access to infrastructures, its relations with URI, protection of knowledge with patents, business model, role of funding programs for the creation of spin-offs and the type of investors.