

Technology transfer in europe

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Impact paragraph

This thesis empirically examines the technology transfer activities of universities, research institutes and firms. All the chapters include discussions aimed at policy makers. Chapter 2 recommends that comparisons of transfer performance at a national or regional level need to take a multilevel perspective and control for institutional features as well as regional characteristics. The results of Chapter 3 suggest that the evaluation of university knowledge transfer outcomes by government funding bodies should consider the location of the university and the degree and quality of competition. For instance, expectations for the number of partner-led research agreements should be adjusted downwards for most universities, as regional demand, a major driver of research agreements, is limited.

Given the importance of policies targeting the diffusion of knowledge Chapter 4 indicates the need to address barriers to this policy objective. Future research could for instance explore if barriers related to framework and organisational, cost and negotiation can be mitigated by assisting, in particular SMEs without experience, with designing, drafting, and negotiating contractual agreements. Barriers in relation to the quality and development stage of the technology can be addressed through increased proof of concept funding and lowering the threshold criteria for such initiatives. Closer to market support for innovation has however increased where the focus has shifted to policy support for innovation which requires higher technology readiness. This focus is not only on increasing jobs or economic growth, but more importantly to direct technological change and uptake towards societal challenges. Policies targeting barriers related to a reluctance to transfer technology for fears of losing competitive or technological edge might be more challenging as enterprises are competitive in nature. On the other hand, barriers related to framework and organisational, costs and search barriers can be alleviated through better communication and assistance on how technology markets work.

The European Commission's principles for knowledge transfer policies stress the value of specific policies, examined in Chapter 6, for supporting knowledge transfer outcomes that lead to commercialisation. These include

clear IP ownership and conflict of interest rules to minimize disputes, the codification and publication of policies for IP, licensing, and start-ups; and incentives that encourage inventors to protect IP and support its exploitation by firms.

Most of the research in this dissertation was presented in international conferences or published in peer-reviewed journals or book chapters. Chapter 2 was presented at the T2S conference in Bergamo, Italy in 2013 and a later version was published as a book chapter in *University Evolution, Entrepreneurial Activity and Regional Competitiveness* in 2016. Research from Chapter 3 was presented at two conferences, the first time at the FINKT conference in Rimini, Italy in 2015 and an updated version in 2019 at the UNU-MERIT internal conference in Maastricht, The Netherlands. The chapter, with some modifications, is based on the paper that is published in *International Journal of Innovation Management* in 2021. Chapter 4 and elements of Chapter 7 have been presented at the ASTP PROTON conference “Options for Technology Transfer Policy in EU Context” in 2018. Chapter 6 is published in *Research Evaluation* in 2015.

Biography

Nordine Es-Sadki was born in Maastricht in 1984. He obtained his bachelor's degree in economics from Maastricht University in 2009. In 2010 he obtained his master's degree in economics from the Erasmus University in Rotterdam with distinction. He joined UNU-MERIT as a researcher in January 2011. At UNU-MERIT he has mostly been working on contract research projects for the European Commission on topics of innovation indicators, survey design and methodology.

His research interests include, the analysis of Science, Technology & Innovation, public sector innovation and social innovation, knowledge flows from public research to firms, and survey questionnaire design and methodology.