

linking the innovation efforts carried out in the university to regional development

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Abstract— In an economic context characterized by rapid change and the appearance of new production models based on knowledge and knowledge, the links between the university and the regions must be strengthened. The modern economy based on knowledge mobilizes various knowledge developed by fundamental research. Since their foundation, Universities have been responsible for the creation and transmission of knowledge. It is therefore the university laboratories that prepare the competitiveness of tomorrow.

Keywords: Globalization, university research technology transfer

INTRODUCTION

Globalization has brought about a profound change in economic development throughout the world, which is leading organizations responsible for promoting development to adopt a regional approach based on the sharing of knowledge and know-how. Globalization is also increasing the focus on innovation, which is now the main driver of economic growth – both for companies and for regions and countries. However, universities are located at the intersection of these two deep trends: anchored at the regional level, they are undoubtedly also the main driver of innovation.

This article analyzes the relationship between the university and its regional environment by trying to answer the following question: How to link the innovation efforts carried out in the university to regional development?

IDENTIFYING COMPETITIVE ADVANTAGE

The identification of innovations essential to the economic prosperity of regions is based on the idea that regions can only develop by first identifying their own competitive advantage. And to do this, regions must develop a regional strategy that is the cornerstone of viable public policy and effective local action. To define this strategy, the regions face several obstacles. The first is the lack of skills and tools to identify own competitive advantage. To achieve this, regional leaders must first be provided with the capacities and skills required for this purpose. But the phase of identifying competitive advantage does not end once regional leaders have developed a regional strategy. The development of a regional strategy presupposes the existence of one of the "regional governance" stakeholders, capable of ensuring the supervision and management of this strategy. regional governance makes it possible to channel the initiatives carried out in these different sectors. The development and implementation of a regional strategy comes with many challenges for regions, which must not only identify the specific assets they have and study the markets they can exploit, but also ensure the convergence of investments. public and those from the private sector. The experience acquired in this area nevertheless suggests that regional governance is based on the appointment of a catalytic and unifying body capable of organizing a round table between the various regional actors, and on the broader commitment of the leaders of the public and to define so precisely the innovations that regions need to fully achieve economic prosperity. Universities can play this role by contributing to this process: indeed, they often have regional

economic expertise that can facilitate the identification of the competitive advantage of their region.

INNOVATIONS MADE BY THE UNIVERSITY

The importance of innovation as a driver of economic growth and wealth creation is widely recognized. As a result, governments' understanding of the role of universities has evolved. They now expect universities to make a major contribution to advancing innovation and economic development.

Currently, universities archive the results of their research activities for funding purposes. However, these research results are not always adapted to regional development strategies, nor easily accessible to people who do not belong to the research community. It would therefore be necessary to begin by reforming these catalogs, taking into account the needs of other players in the regional innovation market.

There is therefore a gap to be bridged between universities, able to provide innovation thanks to the results of research carried out, and the regions which need the innovations. Universities are often uninformed of regional development needs or competitive advantages. Universities build bridges to the regions. In most cases, these gateways do not adequately meet development needs. As we pointed out in the previous section, universities must first contribute to the development of the regional strategy. It is therefore necessary to set up a mechanism for the "centralization" of information. A market works because it offers buyers and sellers a neutral meeting place. The primary need is to enable universities and regions to exchange information. It can simply be a matter of creating a virtual meeting place, allowing universities to put their "catalogue" of innovations online, and regions to share their "innovation needs". Such an initiative would certainly contribute to regional development.

ACADEMIC RESEARCH AND KNOWLEDGE TRANSFER

Since the early 1980s, public authorities and universities have multiplied initiatives to strengthen their knowledge transfer capacity, in particular the transfer of inventions and discoveries from the academic world to industry. "Research commercialization" refers to the process of transforming scientific discoveries and inventions into marketable products and services. Generally, the results of university research are commercialized by licensing patents to companies. The term "technology transfer" has a number of specialized meanings, but basically it refers to "the movement of know-how, technical knowledge or technology

from one organization to another" (Bozeman, 2000, p. 629). This term is most commonly used in the context of the transfer of inventions and related know-how from research organizations (especially universities and public research institutions) to users. "Knowledge transfer" is a more recent term used mainly in Europe to refer to the transfer of knowledge and academic expertise to research users. Although the results of research are of crucial importance, the term "knowledge transfer" is often used in a broader sense, encompassing academic knowledge of all kinds, whether or not it has commercial value, and the transfer to larger user groups than just companies.

The commercialization of research is based on intellectual property rights (IPRs). IPRs reward investment in R&D by granting ownership to inventors, their employers, those who have funded the research, or a combination of these actors.

Invention licensing and business creation are not the only mechanisms for commercializing university research as both graduate students and teachers bring knowledge from universities to companies while the latter access developed knowledge by universities through sponsored research, conferences and academic journals (Sizer, 2002). But increasingly, licensing and company creation are seen as the two key mechanisms for commercializing academic research.

CONCLUSION

We have emphasized in this article the interaction between the university and the region as well as industry and on the regional role assigned to universities which has enabled them to forge stronger links with regional bodies and encouraged them to develop services that meet the region's needs in terms of innovation. It should be noted that those responsible for developing the regional strategy must create conditions that allow both universities and individuals to enjoy a great deal of autonomy, because they will thus be able to exercise their entrepreneurial spirit more easily. It is essential that officials, in addition to supporting access to information, support the strengthening of policies and initiatives in this area, the development of best practices and the creation and creation of an environment conducive to collaboration between the university and other regional players.

REFERENCES

Barkley, D., M. Henry et D. Lee (2006), « Innovative Activity in Rural Areas: The Importance of Local and Regional Characteristics », Community Development

Investment Review, vol. 2, n° 3, Banque de Réserve Fédérale de San Francisco.

Lyons, T.S. (2004), « Policies for Creating an Entrepreneurial Region », *Main Streets of Tomorrow: Growing and Financing Rural Entrepreneurs*, compte rendu de conférence, Banque de Réserve Fédérale de Kansas City, pp. 97-105.

Porter, M.E. (1999), « New Strategies for Inner-City Economic Development », in J. Blair et A. Resse (éd.), *Approaches to Economic Development*, Sage Publications, Thousand Oaks, Californie, pp. 32-47.

BOUCHER, G., C. CONWAY, et E. VAN DER MEER (2003), « Tiers of Engagement by Universities in their Region's Development », *Regional Studies*, Vol. 37, No. 9, pp. 887-897.

CLARK, B. (1998), *Creating Entrepreneurial Universities: Organisational Pathways of Transition*, Oxford: Pergamon Press.

LEYDESDORFF, L. et H. ETZKOWITZ (2001), « The Transformation of University- Industry-Government Relations », *Electronic Journal of Sociology*.