3 mars 2019 • Bordeaux, France • 19

## UNIVERSITY RESEARCH COMMERCIALIZATION EXPERIENCE BASED ON THE SPIN-OFF COMPANY FORMATION

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A specific feature of the institutional development of universities in the conditions of a post-industrial society is their convergence with the real economy and, as a result, the realization (apart from the main social role of education providers) of the innovation-production function. Creating the results of intellectual activity (RIA), universities, as a rule, do not have their own production base and in most cases cannot independently start production of innovative products based on developments that confront universities with the problem of commercialization.

The commercialization of RIA consists of introducing them into the economic turnover in order to recover the costs of creating and making a profit, which is the source of new results' development. The expediency of commercialization can be easily justified: if the RIA is not recognized as an object of intellectual property rights and turned into intangible assets, the costs associated with their creation will have to be recognized as expenses of the current period and indirectly written off to the cost of other products (services) [1]. Thus, instead of the source of

development of the university, intellectual products can become, despite the enormous potential profitability, the yoke for the budget of the university.

In modern practice, there are three main forms of commercialization of university developments and technologies: 1) conducting research and development (R&D) commissioned by industrial enterprises and companies; 2) licensing and assignment of patent rights; 3) the formation of small innovative enterprises with direct or indirect participation of the university.

The first two forms – custom R&D and licensing (assignment of patent rights) without the participation of the university in the capital of the company – guarantee a stable income and are simple enough to realize, but they are not the most promising from the point of view of university development, because in both situations the university loses intellectual property rights ownership of the results of scientific and technical activities. Thus, according to the legislation currently in force in most post-Soviet countries, the exclusive intellectual property rights to the RIA, made to order, belong to the company-customer; the assignment of patent rights implies the complete alienation of intellectual property rights to the counterparty; the granting of a license leads to the loss of rights to use the RIA by the university [2].

A promising model for the commercialization of university developments, in which a university remains the owner of unique scientific developments created within its walls, is the creation of small innovative enterprises - in accordance with the world-wide terminology of spin-off or spin-out of companies (from English spin-off, spin out - budding company). The close attention to the model is confirmed by the tendency to create special units in Russian and Ukrainian universities, as well as individual legal entities affiliated with universities, which provide comprehensive support to innovative projects. Such structures are innovation and technology centers, business incubators, technology transfer centers, collective use organizations, departments for the commercialization of intellectual property, etc.

Consideration of the main risks of intellectualization commercialization of educational institutions based on the spin-off model suggests that the expected positive effect, in most cases, justifies potential threats. Nevertheless, the choice by the university of the most optimal model of RIA commercialization in each particular case is individual and is determined by numerous factors of an economic, legal, social and technological nature [3].

Common determinants of deactivating the processes of commercialization of intellectual property based on the creation of a small innovative enterprise are: imperfection of state innovation policy and strategic programs for the development of economic sectors; insufficient in volume and inefficient distribution of state financing of innovative projects in areas; mental stupor of officials and top officials of scientific and educational institutions and industrial enterprises, their unwillingness to realize the decisive role of intellectual property in the development of society; fragmentation and unsystematic scientific and technical cooperation [4].

The solution of the problems discussed above will allow to successfully implement the results of university research in practice and provide the economy with new developments and technologies, thereby stimulating the flow of funds

from material production to the scientific and educational sphere. The priority directions for initiating changes in this context in the coming years are the formation of university innovation infrastructure; training of qualified managers and scientists with knowledge and skills of effective commercialization of the results of educational and scientific activities, management of innovative companies and projects; establishing partnerships with leading foreign business schools and organizing joint programs in the field of innovative entrepreneurship.

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