

INNOVATIONALITY IS THE TRANSFER PROCESS FROM THE IDEA TO COMMERCIALIZATION

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Abstract

In today's world, innovationality is synonymous with modernity, development, good governance and strategic thinking. The country's economy and whole of society should be innovative. The research and development process and the results of the work would be reviewed from the commercialization perspective. The all innovative projects should finish on the free market, but majority of them end their lives at the research and development stage. The idea of spin-off corporations has to serve the subordination of the entire innovative project realization cycle to the vision of its commercialization. Innovative society and economy require implementation of both large and small innovations, created in large, medium and small R & D programs. In economically leading countries, the mega-programs play an important role in innovationality. Small innovation programs are usually created by small research teams and individual inventors. For the balanced development of the country's economy, there is a need for the variety, both small and large innovation programs. In the absence of an effective opportunity to realize one's own Polish mega-programs, it is worth to consider the mega-program named: „Provision of services on the international research market” as a Polish specialty. For 10 years the Warsaw's Institute of Aviation pursues this strategy. The Institute of Aviation employs about 800 specialists, which perform the advanced research of the new materials and designs for the new gas turbine engines and combustion systems.

Keywords: *Innovationality, research & development programs, spin-off*

1. Introduction

Innovation is the new product, the new service, the new procedure, the method of administration, the method of organization or the method of conduct.

Innovationality is the creation and exploitation of innovation. The purpose of the innovationality is to increase the competitiveness of the enterprises, the economy and the society.

In today's world, innovationality is synonymous with modernity, development, good governance and strategic thinking. The country's economy and whole of society should be innovative.

2. Model of the innovation process

The model of innovation cycle involves a concept (idea) stage, research and development stage and commercialization of innovation stage, implied as a market success.



Fig. 1. Model of the innovation process

The starting factor in the innovation process can be:

- political and economic decision,
- market requirements,
- individual ideas and initiatives.

The costs of large investment programs are repaid by governments or large corporations. Smaller programs are supported by government agencies, special funds, and other sources.

Among the many concepts brought, the real value has these concepts, which can be commercialized.

Commercialization is a necessary condition for innovation. Big programs inspired and ordered by the governments are also being commercialized by them, through orders placed by the government and large corporations. For example, U.S. innovation mega-programs are focusing on the challenges which are brought by successive wars. The last, Afghan War, pushed forward the development of miniaturization, robotisation and systems integration. Japanese mega-programs accelerated the development of automobile and electronics industries. European Union is organizing, among others the aerospace innovations mega-programs.

Mega-programs cause a significant acceleration of development for the countries organizing them, they are an inspiration for new innovations and they are the sources for the transfers of technology.

Small innovation programs are usually created by small research teams and individual inventors. For the balanced development of the country's economy, there is a need for the variety, both small and large innovation programs.

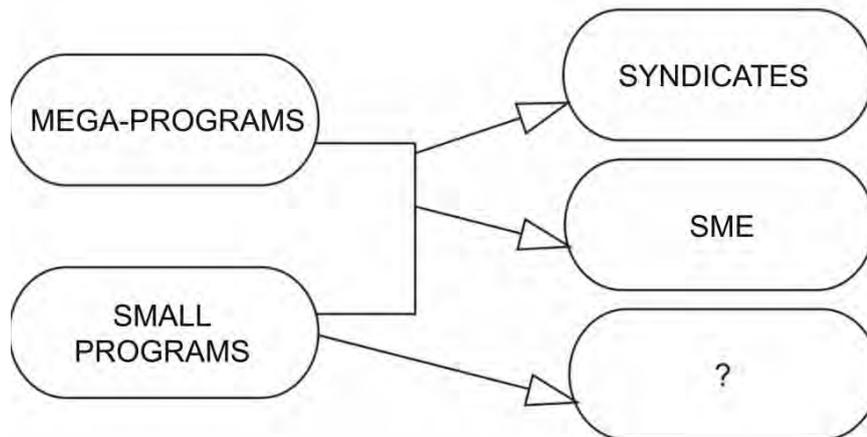


Fig. 2. Commercialization in the innovation model

In the area of small programs, the number of ideas with the chances for the market success is greater than the financial capacity or technical capacity for their commercialization by small and medium-sized enterprises. The lack of commercialization entity in such programs deprives them from the „innovative” title, also deprives them from the pressures of disciplinary research, which subordinate them as the commercialization target. This raises the absolute necessity for finding an equivalent replacement solution that guarantees the achievement of the commercialization objective.

3. Innovationality and national realities

In economically leading countries, the mega-programs play an important role in innovationality. These projects stimulate the entire economy through the job creation and launch of technology transfers. Mega-programs stimulate the development of co-operating SMEs and in this way also create the demand for the small innovative programs.

In our everyday realities, the lack of mega-programs and relatively small demand for

commercialization of small programs, are partially compensated by foreign capital direct investments and purchases of licenses.

For the implementation of the competitiveness maintain policy, however, it is necessary to find ways in which these deficiencies can be compensated in a broad sense.

Thus:

- in the case of mega-programs absence, one proposes realization of strategies to provide research services on the global market,
- in the face of insufficient number of companies interested in commercialization of innovative projects, one proposes to spread the practice to create spin-off corporations for each project, which is not contracted by the commercial customer.

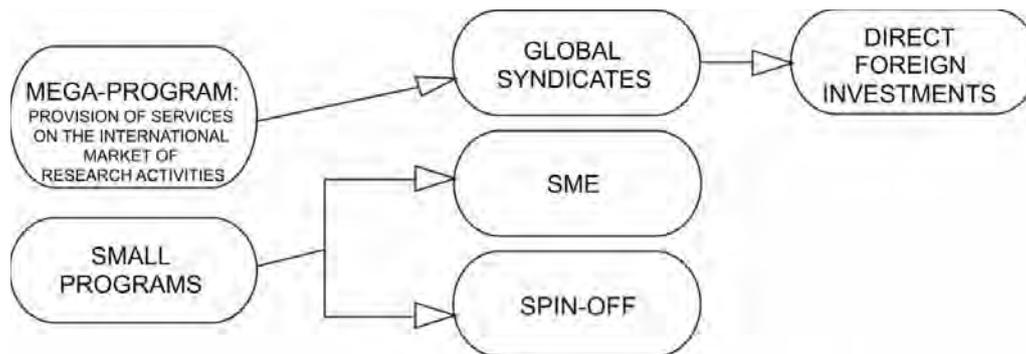


Fig. 3. Innovation model adapted to national realities

4. Mega-program: Provision of services on the global research market

Provision of services on the international market of research activities has become technically possible, thanks to the development of telecommunications technology which enabled professionals to work directly on the network. It was also become feasible due to the recognition of the fact, that the provision of highly specialized services based on market principles is very efficient and very beneficial financially.

In the absence of an effective opportunity to realize one's own Polish mega-programs, it is worth to consider the mega-program named: „Provision of services on the international research market” as a Polish specialty.

This mega-program allows one to export high percentage, nonmaterial intellectual assets, or knowledge. It allows for the real participation of Polish specialists in the most prestigious and challenging innovative programs in the world. It enables the creation and development of Polish intellectual elites. The program requires the development of higher education system, knowledge management system and the continuous expansion and modernization of the research base.

For 10 years the Warsaw's Institute of Aviation pursues a strategy „to provide research services to the global market”. As implementing this strategy, the Institute employs about 800 specialists, which perform the advanced research of the new materials and designs for the new gas turbine engines and combustion systems.

In case of definition and implementation of this mega-program, the tens of thousands, even perhaps hundreds of thousands of Poles could find employment.

5. The idea of a spin-off

Spin-off, it is an unexpected but useful effect, which was obtained on the occasion of performing other studies or work.

The spin-off corporation is a separate and partially independent company, which originated from an already existing organization.

Although according to the assumption the all innovative projects should finish on the free market, but majority of them end their lives at the research and development stage.

There are two reasons for this:

- the lack of subject, interested in the commercialization of the results,
- lack of vision of commercialization in the project realization cycle.

The idea of spin-off corporations has to serve the subordination of the entire innovative project realization cycle to the vision of its commercialization.

According to the proposal, the structure of the spin-off corporation, which will meet the challenge of the project future commercialization, would be defined in the research & development work planning stage. The research and development process and the results of the work would be reviewed from the commercialization perspective. After completion of the project the corporation would start the operations. The success of the corporation would lead to its privatization, and its failure would lead to bankruptcy.

6. Summary and conclusions

Innovative society and economy require implementation of both large and small innovations, created in large, medium and small R & D programs.

In the existing Polish economic and political conditions, one does not implement the range of national mega-programs. Many small, bottom-up driven innovative programs do not find the public, willing to commercialize them. In order to fill these gaps in the national innovational structure is proposed:

- in the mega-program range – „the provision of services in a global research market” as the Polish mega-program and the Polish national specialty,
- for small programs range - the creation of spin-off corporations at the stage of R & D realization, these companies would have to undertake the challenges of their commercialization.

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