

## Methods for Commercializing the Results of the Innovation Project

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**Abstract:** The effective promotion of products will largely determine the performance of the basic indicators of the innovative project, which include the time of return and sales, profits and efficiency and effectiveness. At implementation of innovation, the promotion of innovative products is traditionally defined as "commercialization". Depending on the classification of the participants in the process of commercialization, the results of the innovative project may be determined, the objectives in promotion of technology commercialization projects corrected and different strategies for project promotion used. Activities for planning commercialization, including both the determination of innovative ways to promote products on the market and identification of ways and actors of commercialization and their share in the terms and rights to innovation, will be implemented at the stage of development of the life cycle of the innovation project. The chosen method for commercialization of the innovation project results will determine the cost structure. Thus, elaborating the business plan at the stage of development of the innovation project life cycle, the company shall determine the method for commercializing an innovative project in the case of involvement of relevant third party organizations into the implementation of this process and the joint selection of commercialization tools and to make the calculation and comparative analysis to determine the size and cost structure to take a final decision.

**Key words:** Innovation management • Commercialization of innovation • Commercialization stages  
• Innovative project • Innovative products

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### INTRODUCTION

Promotion of innovative products to the market is an integral part of any innovation project implementation; this activity is traditionally related to marketing, namely to one of its constituent parts, which is the promotion of products [1, 2]. It is the efficiency of product promotion that will largely determine the implementation of the basic indicators of the innovative project, to which we attribute the timing of its implementation and payback, profit, efficiency and effectiveness.

In innovation activities the process of innovation promotion of innovative products is traditionally determined as "commercialization" that, according to one definition, is making a profit from the commercial use of information about the products or technologies and / or the products or technology.

During commercialization the income can be obtained [3-5]:

- From commercial agreements related to the exploitation of technologies, including the transfer of technology;
- From research works aiming at bringing a product or technology to the level of the market;
- From selling licenses for the use of product or technology to third parties;
- From establishment of companies or joint ventures with strategic partners by the developers for their own products or services with the use of the developed technologies.

**The Main Part:** Innovation plays an important role in the economy of the Russian Federation. At that, the development of new technologies and products is based on the research carried out by academic, governmental, science and technology and industrial institutions. Highly qualified and highly motivated staff of these institutions can be considered as the basis for the development of

high-tech business in the Russian Federation. However, the effectiveness of the most part of innovative small and medium-sized enterprises, based on the above-mentioned institutions, is low because of the lack of practical experience in the market conditions and the low-skilled management. Thus, the role of commercialization centers, capable to provide a wide range of consulting, education, coaching and other support to innovative enterprises, increases.

Some businesses may independently carry out this type of activity, in which case the holders of innovative products or technologies can be classified into four main groups.

The first group includes the companies, being the developers and, therefore, the owners of all rights to the innovative products; such enterprises are major automakers, for example, "AvtoVAZ", including in its organizational structure the Science and Technology Center (STC), where the company can design new products independently and in pilot production, can carry out the production of a pilot lot of innovative products, i.e. the entire process of R and D is performed by their own resources, but there is an insignificant number of such enterprises in the Russian Federation.

The second group of authors is the actively developing scientific research institutes, funded, mostly, from international grants and direct foreign investment. This group is the source of a significant number of promising new technologies and know-how. However, it should be noted that the developers of this group already have the owner, which is secured either legally or through the transfer of research results to the financier in the form of reports.

The third sub-group includes the research teams with limited budget funded from small grants. This team has a lot of technologies that are brought up to a certain stage, but are not prepared for commercialization.

The fourth subgroup is formed by small and medium-sized innovative enterprises that have passed a certain way of commercialization of their developments and are specialized in narrow market segments. This group often needs to expand its small and medium-sized enterprises by raising working capital. Finding of partners at this stage of development requires a certain preparation of the companies and their projects, as well as search for specific investors and strategic partners. In this process the development of innovative management is important for further successful promotion of the company to the market.

Another group of participants of commercialization, namely potential investors, is highly heterogeneous. In this group, four subgroups may be distinguished. If we consider this group in the timeline of participation in the process of technology commercialization, these 4 groups can be arranged in the following order.

The first sub-group of investors, who fund the development of technology at the very early stages, should include a variety of domestic and international governmental funds and programs. This group provides a significant amount of funding, accumulates a large number of scientific and technical information and has a significant influence on the development trends of Russian science.

Private funds, grants and programs form a second subgroup of investors. This group should include international projects, funds and grants. Often members of this subgroup are beginning to invest in the development, only when the research teams have already received funding from public funds and within the Russian and international programs.

Venture capital funds are the third subgroup of investors. Both foreign and Russian venture funds assimilate only a few developments, have a significant number of restrictions depending on the sector of activity and are often specialized in the developments for a particular industry. Investments from the members of this subgroup include complete or partial transfer of rights to the results of research to the financier, interested in their further use or resale to a strategic investor.

The fourth subgroup is formed by industrial companies, funding scientific research for further use in proper activities. These companies are developing the so-called intra-firm technology commercialization, when major Russian and foreign companies, which have their own research budgets, fund research and development works to introduce new technologies in their production.

The deals arranged by an investor with a team of developers at the stage of R and D completion funding can be registered as research and development projects, establishment of joint ventures or joint patenting, where each party owns a share in the results of work [6].

Thus, considering these subgroups the stages of innovation commercialization depending on the chosen method of implementation of the innovative product promotion and determination of the property rights are as follows (Fig. 1).

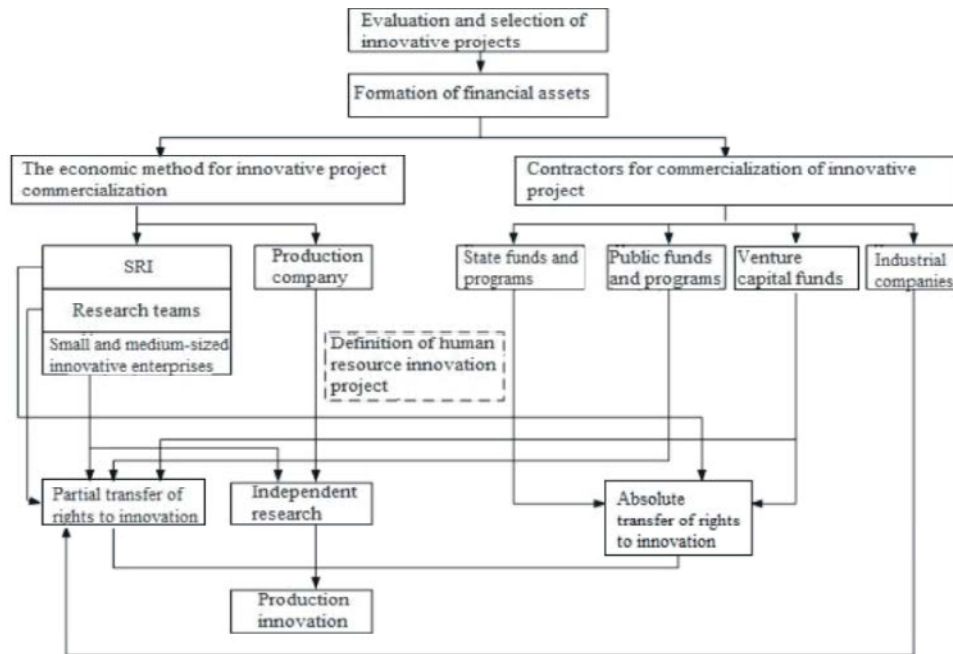


Fig. 1: Stages of Innovation Commercialization

The analysis of this scheme leads to the conclusion that the entire life cycle of commercialization of the results of the innovative project without the involvement of partners and the companies can be realized only at large enterprises; in particular cases, the participation of external companies, that is, the implementation of the full life cycle of innovation project, including its promotion, operation and maintenance, requires foreign investment.

Some functions in technology commercialization may be performed by consulting companies, specialized in assistance to technology commercialization through the provision of consulting services to developers and innovative companies. The list of consulting services includes:

- creation of new enterprises for promoting the establishment of new legal entities that develop and / or commercialize new technologies;
- intellectual property protection through the provision of services for identification, assessment and protection of intellectual property and technical audit;
- ensuring the development of high-tech companies - consulting services for the commercialization of research and development in the form of sales of innovative technologies through technology transfer;

- project development - implementation of the company innovative potential by converting the existing or new property and / or non-property capacities into viable projects;
- project promotion to attract investment - project promotion to the Russian and foreign markets, the search for investors and investment for the projects, introduction of procedures for proper accountability;
- solving problems of the enterprises by creating the working situation at the innovative enterprise through the introduction of innovative project management, search for partners and investors.

Depending on how the commercialization participants classify the results of the innovative project, the objectives of promotion of the technology commercialization projects may be determined and adjusted and different strategies for project promotion may be applied [6].

Thus, the planning of commercialization, including the determination of the innovative ways for product promotion to the market, methods and actors of commercialization and their share in the terms and rights to innovation, will be implemented at the stage of development of the life cycle of the innovation project.

Having determined the actors of innovation commercialization, the company can start searching for investors and strategic partners. There is a variety of methods for classification of the tools for promotion of the innovation project commercialization. Below are some of them:

- vertical and horizontal methods for promoting technology commercialization projects;
- promoting technology commercialization projects with the use of the Internet tools;
- promoting technology commercialization projects with the use of technology transfer networks and innovation center networks [3];
- promoting technology commercialization projects with the use of the business - incubators [7];
- promoting technology commercialization projects at venture fairs and exhibitions;
- promoting technology commercialization projects for technology brokerage events [5, 6].

The important role of the governmental structures for support of technology commercialization is to create a favorable investment and innovation climate, development and adoption of laws regulating and stimulating activities associated with the development of innovation. Governmental structures may be actively involved in technology transfer, acting as providers of information about interesting and promising innovative projects at the federal, regional and local levels. State structures can act as intermediaries between the financial institutions and the authors of innovations, acting as organizers of negotiations and guarantors of transactions on technology commercialization [6, 8-10].

Thus, depending on the chosen method for commercialization of the innovation project results the cost structure will be determined. In case of the independent method, the role of material costs for organization and preparation of production, product development and organizational and administrative costs of the research increases. In the case of attracting investors and the transfer of rights to innovation, there is an increase in organizational and management costs for attracting a buyer, setting up contractual relationship and the cost for consulting services to the buyer of the rights.

The company will have the largest profit and the largest costs at independent realization of the innovation. In this method, the commercialization of the innovative project profits can be defined by the formula:

$$\Pi_{TI} = \sum_{t_0}^{t_k} V_t \times \Delta\Pi_t \times K_{dt} - \sum_{t_0}^{t_k} Costs \quad (1)$$

where,  $\Pi_{TI}$  - potential size of the profit for the period t;  
 $V_t$  - volume of innovation sales in the year t;  
 $\Delta\Pi_t$  - expected profit from the sale of innovations in the year t;  
 $K_{dt}$  - discount rate in a year t;  
 $t_0, t_k$  - initial and final years of the calculation period, respectively;  
 $\Sigma$  costs - total costs for innovation promotion to the market in a year t.

However as it was noted earlier, only a small number of companies is capable of independently, without partners and other contractors, to implement the commercialization of innovative products, which is a significant negative factor in the development of innovation in the automobile industry, in particular and in the Russian Federation as a whole. The above is due to the lack of support from government agencies and insufficient investment of proper funds in the development of innovation. Furthermore, the situation with commercialization of the results of the innovative project is aggravated by the fact that application of the tools to promote innovative products causes increase in organizational and administrative costs, in the first place, with the search for investors, the analysis and the choice of a specific tool for commercialization of products. Besides, if outside organizations are attracted, the uncertainty increases, that is, the level of the innovative project risk.

## CONCLUSION

Thus, at the stage of development of the life cycle of the innovation project during business plan elaboration, the company must determine how to commercialize an innovative project if relevant third party organizations are involved in implementation of this process and the tool for commercialization are selected jointly and make the calculation and perform a comparative analysis of results to determine the size and cost structure for a final decision.

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