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Management of Study Project as the Principal Innovational Management Instrument

Yury M. Belyaev¹, Irina I. Ushatikova², Alsu R. Rakhmanova³, Natalia N. Kulikova⁴ and Sergey S. Demin⁵

¹Kuban State Technological University, Krasnodar, Russia

^{2,3}Elabuga Institute of Kazan Federal University, Elabuga, Russia

⁴Moscow Technological University, Moscow, Russia. Email: karpuxcinatasha@yandex.ru

⁵Financial University under the Government of the Russian Federation, Moscow, Russia

ABSTRACT

Each company strives to ensure that economic growth has been intensive, i.e., the result of the application of improved inputs and technologies. Thus, innovation is understood as the activity associated with transformation of ideas (usually results of scientific research and development or other scientific and technological achievements) in technological innovation - new or improved products or services introduced on the market new or enhanced processes or methods of production (transfer) of services used in practice. It should be noted that the basis of strategic management is the factor of adaptation of firms to changing environmental conditions. It is obvious that this firm needs to change anything in its structure, i.e. to introduce an innovation that will enable first- to maintain the status quo of the company, and, secondly, to obtain new competitive advantages. However, innovations require financial investments. In order to obtain additional profit or save its current level necessary to carry out investments in the development and implementation of innovations. While empirically the relationship: the greater the success in the future hopes, the costly it should be ready in the present.

JEL Classification: O14, O31, O32, O33.

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1. INTRODUCTION

One of the forms of research and development activities are research projects.

Under the research project refers to a plan of research and development aimed at the solution of actual theoretical and practical problems, socio-cultural, economic, political significance. In the research project sets out scientifically reasonable technical, economic or technological solutions.

The basis of the work are General scientific methods of cognition, such as methods of unity of analysis and synthesis (Marble, 2003), methods of generalization and prediction, economic analysis.

The information base of the study consists of analytical materials, consulting and audit services, scientific conferences and seminars, legislative and regulatory acts of the Russian Federation.

The content side of the work, the authors show, based on the official data of the Federal service of state statistics, scientific research institutes, analytical agencies.

2. DIFFERENCES IN UNDERSTANDING OF RESEARCH PROJECTS

Distinguished initiative scientific projects; projects for the development of material-technical base of scientific research; projects of creation of information systems (is) and database (DB); publishing projects, organization of field work etc. will Consider them in more detail.

Initiative projects, as a rule, are carried out small (to 10 persons) research groups or individual scientists and do not have specific customers. The implementation period of the action project, typically 1, 2 or 3 years.

The contents of the action project are as follows:

- Fundamental scientific problem on which decision the project is directed;
- Specific fundamental task within the framework of the problems to be solved by the project;
- Proposed methods and approaches (with an estimation of degree of novelty), the General plan of work for весь the period of performance;
- Expected scientific results (a detailed description with assessment of degree of originality);
- The current status of research in the field of science, comparison of expected results with world level;
- Available to the staff of the scientific groundwork on the proposed project, the previously obtained results (degree of originality); the developed methods (with an estimation of degree of novelty);
- List of publications most closely related to proposed project;
- The list and characteristics of existing equipment;

The project of development of material-technical base of scientific researches include:

- Fundamental problems whose solution will be used the expensive equipment;
- Scope of application of the equipment (Department, organization, etc.);
- Overall work plan for acquisition and commissioning of equipment;
- Existing groundwork for the proposed project;

- List of available equipment and materials, and the rationale for the purchase of new equipment;
- Contract for the purchase (or manufacture expensive equipment).

In the project of creating information systems and databases are recognized:

- Area of knowledge in which to apply the created IP and the database;
- Fundamental scientific problems whose solution required the creation of IP and DB, as well as the number of users and estimated their number;
- Specific fundamental problem to be solved by the project;
- Proposed methods and approaches;
- Overall work plan for the whole duration of the project;
- Expected results;
- Modern state of the existing IP in the field of science, compared with the world level, the presence of domestic and foreign counterparts (Medynsky, 2012);
- Available scientific groundwork for the proposed project (the experience of similar projects, description of the previously created IP, main);
- Availability of licensed software, developers of IP;
- The list of expensive software and hardware tools that will need to buy for the successful implementation of the project;
- Ways to provide the IP of the scientific community (the alienated; require licensed software from the user; telecommunication access, other);
- The standard features of the is developed (required RAM, KB); memory required hard disk (MB) for the program and separately for the database; the estimated hardware and operating platforms, software tools, necessary for the operation of IP;
- Functional characteristics (type IP number of output forms, the data source IP, the number of fields and number of records or objects (Raymond & Bergeron, 2008); methods of submission of documents; organization and search mode);
- Additional functionalities (data transmission network, the communication channels, the possibility of further IP development, ways of providing information of IP).

In publishing the project shows:

- It's a fundamental scientific problem, the analysis and generalization of the results of the project;
- Specific fundamental task in this problem;
- The plan-prospectus (structure and the maintenance) editions, edition volume in a copyright sheet (one author's sheet is equal to 40000 characters) and the estimated circulation;
- The current state of publications in the field of science;

- Degree of originality of the offered edition (content, structure, level of analysis and synthesis, methods of presentation);
- Available from the author (author) scientific reserve;
- Previously obtained results and developed methods;
- List of publications of the author (authors), most closely related to this project.

The establishment of centers of collective use (CCU) shows:

- Area of expertise, the solution of the fundamental problems which it is expected to use complex equipment (Chuev et. al., 2016);
- List of available equipment, condition. Key features;
- Existing experience in scientific and methodical use of the equipment for fundamental research;
- The main directions of scientific-methodological complex, as well as the list of necessary equipment and materials to ensure stable operation of the complex.

Considered projects are characteristic for carrying out scientific research in mathematics; Informatics; mechanics, physics; astronomy; chemistry; biology and medicine; earth science; Humanities and social Sciences (Lyneis, Cooper, & Els, 2001; Shkurkin, Novikov, Kobersy, Kobersy & Borisova, 2015).

For a research project characterized by the following:

- Not repeated (novelty);
- Has in advance formulated purpose;
- Has a definite beginning and end;
- Limited in time and means;
- Complex;
- Requires the involvement of specialists of different profiles;
- Is a high priority.

The project should be aimed at achieving within a specified time and using limited resources specifically target, which is so new that demands special approaches to its implementation:

- Create project groups or education of the creative team;
- Management (how to manage project requirements to quality, costs and deadlines).

Many projects can be implemented along with the usual daily activities. However, often the implementation of the project requires the organization of the working group.

3. DESIGN OF INNOVATIVE PROJECTS

Each project must contain the following mandatory elements:

1. Clear title;
2. A brief annotation;
3. The number of performers;
4. Deadlines (year start and year end);
5. The volume of financing per year;
6. Important information on the head and the basic executors of the project, the organization through which the funding; the organization in which the work is performed. Information about the project Director and major participants (for each person separately) shall contain: surname, name, patronymic; date of birth; degree and year of award of academic degree, academic title and year of award of academic title; full name and abbreviation of the organization; position; research interests; the total number of publications; address data etc.

The project should be specified full and the abbreviated name of the organization through which funding is put in place, and the organization in which you work (address, budget account, Bank name, BIC, telephone supervisor, telephone accounting, etc.).

If the project is submitted for the competition, issued to the corresponding application. The conditions of competition are published in the press (Gracheva & Lyapina, 2010; Raymond & Bergeron, 2008).

Any innovative project needs funding. Projects can be funded from the State scientific-technical programs, through grants (Russian Foundation for basic research Russian humanitarian scientific Fund; Tender of the center for Economics of the Ministry of General and professional education under the Russian program of economic researches, etc.).

The project must include a reasonable estimate of the costs, i.e. the total amount of funding per year, including:

- wages (not more than 50% of the total);
- payroll;
- the cost of acquisition of equipment and materials;
- costs of outsourced services (including for the publication of works on this project);
- travel expenses;
- forwarding costs;
- overhead (not more than 20% of the total).

Work on the project is carried out in accordance with the agreement with the funding organization and the technical specifications.

A mandatory element of the project is a technical task.

In the terms of reference identifies the subject work, project name, year, organization in which you work, the performers, the head of the project, the deadlines, the cost of the work, the work purpose, the available scientific potential, expected results and their scientific and technical and practical value, the

content of the work (stages), the name of the stages, deadlines, cost, result and type of reporting, the list of presented scientific, technical and other documentation upon completion of work, recommendations on the use of the results.

Special attention should be paid to the characteristics of the expected results and evaluation available to the developers' backlog. Form of presentation should ensure that the results are accessible to examination.

The completion of the project is documented by the act of closing (interim, annual, stage, etc.).

The projects presented on competition, are multi-stage independent examination by which results the decision on the funding of the project.

4. SELECTION OF PRIORITY AREAS OF RESEARCH AND DEVELOPMENT

The selection of priority areas of research and development plays an important role in the state scientific and technical policy. Priority areas for research and development are implemented in the form of large interbranch projects for the creation, absorption and dissemination of technologies that contribute to drastic changes in the technological basis of the economy and development basic research, scientific-technical provision of social programs, international cooperation programs.

Specific priorities for the development of science and technology are detailed in the list of critical technologies (Fowler, Lindahl, & Sköld, 2015). These technologies are of an interdisciplinary nature and are essential for the development of many fields of science and technology. At selection of critical technologies consider their impact on the competitiveness of products and services, quality of life, improvement of the ecological situation, etc. the Priority directions of development of science and technology, the list of critical technologies of the Federal level approved by the Government Commission on scientific-technical policy.

Priority directions of development of science and technology in Russia, information technology and electronics, industrial technologies (laser, a robotics, flexible manufacturing systems, etc.); new materials and chemical products (Trott, 2008), technologies of live systems (for example, biotechnologies), transport, fuel and power; ecology and rational nature management. Within these selected directions 77 critical technologies.

The development of these areas is conducted within the framework of state scientific-technical programs and public research centers, major economic programs and projects, international and regional programs and projects.

Financing of works on development of research in the field of high energy physics, nuclear physics, controlled thermonuclear fusion, high-temperature superconductivity, space, ocean, genetics is the purpose of the State Committee of the Russian Federation for science and technology (Begyuli, 2004; White & Fortune, 2002). You can also select the program of creation of technologies, machines and industries of the future, promising information technologies; the development of the newest methods of bioengineering. In addition, the state scientific and technical programs provide creation of new medicines; the development of medicine and healthcare; resolution of social problems.

Operating state scientific and technical program shall be submitted for approval to the Government in the form of a separate program at the Federal level; subroutines as a part of Federal scientific and technical program formed on the basis of several state scientific and technical programs; subroutines as a part of Federal target programs.

State Scientific Center

A particular object of a science of Federal value is the State research center. The status of state scientific center assigned by the government of the Russian Federation scientific organizations, enterprises, higher educational institutions having the unique skilled-experimental equipment, highly qualified personnel, in case the results of their research will gain international recognition. Such organizations enjoy special support. It should be noted that the attribution of the organization of the status of State scientific center does not mean change of its organizational-legal form.

Public research centers are exempt from paying value added tax when purchasing materials, equipment, purchased products, and the services of third parties necessary for the execution of programs funded from the Federal budget; the import customs duties, etc.

State Scientific-technical Program

State scientific-technical program represents a complex interconnected on resources, terms and executors of effective interventions to address important scientific-technical problems of development of science and technology.

Programs are selected taking into account socio-economic priorities, projections, objectives, structural policies, international obligations.

In Russia operates more than 50 state scientific and technical programs. Among them can be identified as particularly important: development of highly efficient production processes for agriculture; environmentally friendly and resource-saving technologies in the energy sector, chemistry, metallurgy; new materials; technologies and equipment for construction and transport. A number of major projects in priority directions of development of science and technology funded by earmarked by the Ministry of science and technology of the Russian Federation from the Federal budget.

One of the types of targeted programs, approved by the Government of the Russian Federation is the Federal scientific-technical program.

Federal Scientific-technical Program

Federal scientific-technical program contains linked resources, performers and terms of implementation the complex of scientific research and development, as well as measures for their implementation.

The goals of the Federal scientific and technical programs are in acquiring new knowledge in the field of fundamental and applied science; the decision scientific and technical problems; creation of competitive technics, technology, materials providing the General increase in the level of knowledge and practical implementation of qualitatively new scientific ideas and technologies, development of scientific-technical and export potential of Russia.

Approved by the Federal scientific-technical program must have:

- Significant importance for major structural changes directed on formation of new technological mode (Kobersy, Shkurkin, Zatonkiy, Volodina & Safyanova, 2016);
- Fundamental novelty and interconnectedness of programmatic activities necessary for the widespread dissemination of progressive scientific and technical achievements.

As the state customer is the Ministry of science and technology of the Russian Federation.

The program is guided by a scientific Council, responsible for selecting the technical solutions, level of achievement, fullness and complexity of activities to achieve program goals. The scientific Council is organizing a competitive selection of executors and examination of the obtained results.

Federal scientific and technical programs are developed for the medium-term (five-year) period in accordance with the Federal law “On state forecasting and programs for socio-economic development of the Russian Federation”.

The program can be attributed to the Federal level if the following conditions are true:

- Compliance program and its constituent projects priority directions of development of science and technology and the list of critical technologies;
- The importance of a solved problem for economy, social sector, exports, science and technology development;
- Inability to solve the problem in a reasonable time through the use of current market mechanism and the need for state support;
- The principal novelty and technological progressiveness of the scientific and technical results (Sozinova, Novikov, Kosnikov, Nemchenko & Alenina, 2016);
- The possibility of influence on structural relations in the technological way of economy and production efficiency increase; the sufficiency of system of actions for solution of the tasks;
- The reality of problem solution on the basis of available capacity, availability of personnel, material-technical base and other necessary resources.

5. PROJECT MANAGEMENT

Project management has features and complexity. The working group established for implementation of the project, meeting new challenges different from the challenges facing existing functional units.

Between the working group and the entire organization needs to be sustainable because the project would be implemented in collaboration with existing units and the result should be integrated into the existing structure (Arnold, 2010). For example, the introduction of distance education in high school should happen in cooperation with the deans, departments and other units.

Each member of the working group has, as a rule, two leaders (team leader and head of functional units). To manage the project can be allocated a special head. The structure of the project team depends on the complexity of the project. If, for example, modification of the product, it is created a restricted

working group, composed of the departments of new product development, production, marketing and service. This group is accountable to the head of the relevant Department.

If we are talking about radical changes in the composition of the groups can be distinguished: technical (work) leader, deciding what and when to do it; the scientific (“professional”), the Manager responsible for quality of work; the Manager-Manager, ensuring the personal interests of employees (wages etc.).

The leaders form a coordinate group, which includes:

- Definition of the purpose of the project;
- The appointment of heads of working groups;
- The establishment of working groups;
- Statement of the problem;
- Monitoring the implementation of the project (quality, time, costs);
- A decision on the continuation of the project;
- The dissolution of the working groups;

Working groups carry out their part of the project; responsible for the planning, control, reporting to the coordinating group and the entire organization.

For the selection of candidates in working group are guided by the following criteria:

- Competence and experience;
- Expertise in subject area;
- The opportunity to engage;
- Power and authority in the organization;
- The ability to resolve conflicts;
- Relation to the case;
- Personal interest and motivation.

We must remember that the project Manager plays a crucial role in the organization of work. Therefore, his personal qualities, abilities and powers it needs to have credibility in the eyes of the leaders of the functional units.

In the practice of management, apply different management techniques working group, for example, budget planning and control expenses; the management of information flows, etc. However, these methods are not specific to the working group, they are used to control any processes. Universal is the procedure of holding meetings on the project, decision-making, etc.

To specific project management tools include:

1. Definition of the problem and statement of the problem.
2. The establishment of intermediate stages (division of the project into separate phases).

A clear formulation of the problem and statement of the problem important to:

- Understanding of the project and establishing milestones;
- Highlight the most important problems;
- Create a model of information exchange;
- The definition of expected results;
- Develop recommendations after completion of the work.

On the stages of the project, decisions are made about:

- The continuation or adjustment of the job;
- Clarification of the last stage;
- The form of completion of the last stage.

The allocation of stages in a project should be carefully considered. One of the reasons for failures in the implementation of the project is fuzzy, the organization of cooperation and coordination within the working group and between the group and the organization.

6. CONCLUSION

In the modern economy, the competition benefit of the company and of the country, continuously improve the technique and production technology, methods and the nature of the managerial decision-making, constantly modifying and improving your stuff. At the present stage of socio-economic development of the main productive force becomes a science, and, consequently, its application in business research and development work. Carry out this work takes a great share in the investment. The innovation process is impossible without carrying out scientific researches and engineering developments, and it is impossible and significant forward movement in every area of the business without the innovation.

In the research project sets out scientifically reasonable technical, economic or technological solutions.

Projects can be funded from the state scientific-technical programs, through grants.

Each project is issued, subject to certain requirements, has a clear title, is accompanied by a brief annotation, the draft specifies the number of performers, deadlines, the need for financing per year, information about the leaders and key performers.

Priority areas for research and development implemented in the form of large interbranch projects.

Priority directions of development of science and technology in the information technology and electronics, manufacturing technology, new materials and chemical products, technology of live systems, transport, fuel and power, ecology and rational nature management. To manage the project and its implement created the working group.

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