

Improvement of Economic Mechanisms for State Regulation of Innovative Activities

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Abstract--- *The main directions of innovation policy of the state, tactical and strategic types of innovation policy, direct and indirect methods of regulation of international relations and innovations in the field of innovation activity. Administrative and program-targeted methods. Experience of the USA, Japan and European countries on the regulation of credit and tax incentives and innovation.*

Keywords--- *State Innovation Policy, Innovation, Socio-Economic Development, Innovative Processes, Innovative Policy, Prospective, Foreign Innovative Investment, International Standards, Experience of the United States, Japan and Europe.*

I. INTRODUCTION

As we all know, President of the Republic of Uzbekistan Sh.M. As Mirziyoev noted, "At the same time, a deep analysis of our country's development path, the rapid change in global market conditions and the increasing competition in the context of globalization require the development and implementation of fundamentally new approaches to our country's sustainable and dynamic development."

Therefore, in order to implement these measures, the Strategy of action on the five priority directions of development of the Republic of Uzbekistan in 2017-2021 also focuses on the creation of effective mechanisms for the introduction of scientific and innovative achievements in the promotion of research and innovation. Ensuring the effective functioning of this sector, eliminating the factors that impede its full functioning and development, and its comprehensive support are an integral part of the processes of state regulation of the economy. In this regard, I would like to describe the state innovative policy.

II. METHODS OF RESEARCH

State innovation policy is a set of measures aimed at enhancing innovation and increasing its effectiveness. In addition, it demonstrates the use of the results of innovative activities to be widely used in the socio-economic development of the country and in meeting the needs of the society. The state innovation policy consists of three stages:

- *To develop a scientifically grounded concept of innovative activity development;*

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- *Determining the main directions of government support for innovation processes;*
- *Practical impact on achievement of the goal of activation of innovative activity.*

There are two types of innovation policy: strategic and tactical. The strategy of the state innovative policy is based on the long-term concepts of socio-economic and political development of the country. Choosing an innovative policy strategy requires: Identifying the main directions of state regulation of innovation, selecting the methods for developing and utilizing scientific potential, and defining the main goals of innovation development in accordance with socio-economic development.

Tactical innovation policy defines current goals and specific actions to achieve these goals with high efficiency. Tactical tools are the creation of legal and organizational conditions for funding research and design and development activities, logistical and information support, staff recruitment, and innovation development.

It is possible to evaluate the development of science and technology in the country on the state innovation policy, the effectiveness of its formation methods and the main directions of supporting innovation. Export of scientific and technical activity results (licenses, patents, etc.) will be developed in countries with advanced technology, as well as exports of ready-made innovations will be expanded, and scientific and technical innovation support will be expanded in other countries.

State innovation policy is mainly aimed at creating favorable economic, organizational, legal, information and socio-psychological conditions for the implementation of the innovation process.

Based on the methods and conditions of innovation policy formation, the main directions of state support of innovative activity are defined. The main directions of the state support of innovative activity are:

- *Supporting the development of perspective (fundamental, research, applied) research;*
- *Provision of specialists with innovative activity;*
- *Development of various programs aimed at increasing innovation activity;*
- *State regulation of fiscal and other economic instruments that have an incentive to improve the effectiveness of the innovation activities of individual firms (enterprises);*
- *Participation as a state intermediary in effective interaction between various fields of science (academia, industry and universities) and encouraging cooperation between universities (universities, institutes, academia) and industrial enterprises on innovation;*
- *Generating government contracts for innovative work;*
- *Regulation of innovation activity in the regions;*
- *Creating a legal framework for innovative activities;*
- *Streamlining of international relations on innovation processes.*

There are various forms of regulating international relations for innovation activities. The main ones are:

- *Encouraging foreign innovation investment;*
- *Justified selection of the most promising and priority areas of cooperation;*
- *Export control over innovative activities;*

- *Supporting international small business innovation links;*
- *Application of special tax and credit incentives to participating countries (enterprises) in the joint project;*
- *Introduction of international standards and norms in the country.*

In addition, the following may be included in the forms of government regulation of the sector:

Participation in the work of international organizations dealing with the problems of innovation (UNESCO, OECD, UNIDO, IAEA and others);

Accession in international conventions (eg Convention on the Protection of Intellectual Property Rights);

Development of special laws and norms regulating international innovation relations, participation in international patent and license operations, etc.

Methods of government response to innovative activity can be divided into two groups: correct and indirect.

Proper methods of state regulation of the innovation process are implemented in two ways: administrative, program-targeted. In the administrative form, it is funded to directly influence innovation. This funding is provided by special laws. Program-based Innovation of Innovations Under State Targeted Programs of Innovation Support in Targeted Regulation, contractual funding is provided. That is, the government will create a system of contractual procurement of news (goods, technological processes, services). Contract-based financing - now commonly used - is an element of the contract system between customers and producers.

The contract clearly provides for the termination of work, the material incentives for the distribution of jobs among the participants. Mutual obligations and economic sanctions are negotiated here.

In the system of methods of direct influence of the state on the innovation process, measures promoting the cooperation of industrial enterprises and universities are also important.

As a result of cooperation between industry and universities, it is first possible to introduce advanced scientific ideas into production, and secondly, the interest of industrial enterprises to fund fundamental and research research.

Indirect methods also play an important role in government regulation of innovation processes. These methods, used in the implementation of the state innovation policy, are aimed, first, to stimulate innovation processes and, secondly, to create a favorable environment (economic, social and psychological) for innovation. The structure, structure and content of the indirect methods of government regulation of innovation activities are different.

These methods include tax breaks and credit benefits.

Tax benefits can be as follows:

- *Profit tax of the enterprise directed on realization of perspective innovative activity is exempted from tax;*
- *Foreign currency funds of scientific institutions and universities received from the sale of scientific and technical products are not subject to taxation;*
- *Taxation of property of scientific and technical organizations for value added tax; preferential taxation of profit of enterprises (firms) due to introduction of innovations, etc.*

Concessional lending can also be a major factor in government regulation of innovation. That is, measures for providing low interest rates to joint-stock companies, enterprises and firms.

3. In the world practice, the following types of tax incentives are used to promote innovation:

- *Provision of innovative and scientific research tax credits, ie the provision of income tax benefits when allocating profits to innovative purposes.*
- *Decrease in taxes when innovation costs increase;*
- *Profit on innovation activity is not taxable;*
- *Preferential taxation of dividends received by legal entities and individuals from the purchase of shares of innovative organizations;*
- *Reduction of profit tax when directed to profit-oriented and joint ITCI;*
- *Providing incentives based on the priority areas of the projects;*
- *Taxation of profits from patent, license, know-how obtained as a result of intellectual activity to preferential taxation;*
- *Reduce the taxable portion of the profits provided to machinery and machine tools, research institutes, universities and other innovative organizations at their cost;*

Currently, there are three models of scientific and innovative development in industrialized countries:

- *Countries that want to be leaders in science, they have large-scale targeted projects covering all levels of research and production stages, and the defense sector has a very large share of science and innovation. (USA, England, France);*
- *Countries seeking to expand innovation, create a favorable innovation environment, and rationalize all sectors of the economy (Germany, Sweden, Switzerland);*
- *Countries that stimulate innovation through the development of innovative infrastructure, ensure adaptation to the world scientific and technical achievements, and coordinate all branches of science and technology (Japan, South Korea).*

Features of Innovation Management in the United States.

In the United States, government agencies managing innovation activities include:

- *American Science Foundation (administered fundamental research);*
- *American Scientific Council (industry, university representatives);*
- *National Space Agency (NASA);*
- *National Standards Bureau;*
- *National Institute of Health;*
- *Ministry of Defense;*
- *National Center for Industrial Research,*
- *National Academy of Sciences;*
- *National Technical Academy;*

American Association for the Advancement of Science

While the sources of funding for the last four structures are different, the rest is funded exclusively from the federal budget.

The state encourages the establishment of venture companies and research centers. At the initiative of the National Science Foundation, the most effective research center in the United States and venture companies can fund fully or partially the federal budget in the first five years.

The state is fully funded by its highly demanding and effective research, taking into account their high complexity, cost and risk, and strong international competition.

According to the National Science Foundation, the role of small business research in scientific and technical development is now increasing.

Small and medium-sized businesses have created 2.5 times more inventions per person over the past decade than large corporations.

As in other technologically advanced countries, there are venture companies, spin-off firms (separated from universities, independent institutes, state research centers and specialized corporations) and investment firms. The state is actively subsidizing spin-off firms by major non-profit research centers and universities. In addition, a number of innovative funds funded by the National Science Foundation operate in the country to spread scientific advances through spin-off firms.

The main purpose of investment funds is to provide financial assistance to small innovative firms and individual inventors. The National Science Fund plays an important role in investing small firms, which means they provide loans and grants to investment firms.

These funds include the US Department of Energy's investment fund. The fund also subsidizes individual inventors, as do some research projects carried out by small firms.

An important element of direct support of innovation processes is the creation of state innovation infrastructure.

The state may set up news centers and innovation advisory centers. The state supports the formation of innovative markets (information, exchanges, fairs and exhibitions in the state press) and acts as its agent.

Government agencies should monitor and forecast innovation processes in the country and abroad. In most cases, advanced technologies that are highly effective for production are sought.

Much attention is also paid to moral support in promoting US innovation. These include: government awards, honorary titles, promotion of innovative ways of running a business, visits of state officials to the leading innovative organizations, participation of representatives of science and technology in important state events and so on.

Indirect methods of management include tax incentives, first of all: reduction of taxable profits, reduction of tax rates.

In the USA, much attention is given to forecasting, optimization and standardization of management decisions, state expertise of innovation projects, and state statistics of innovation.

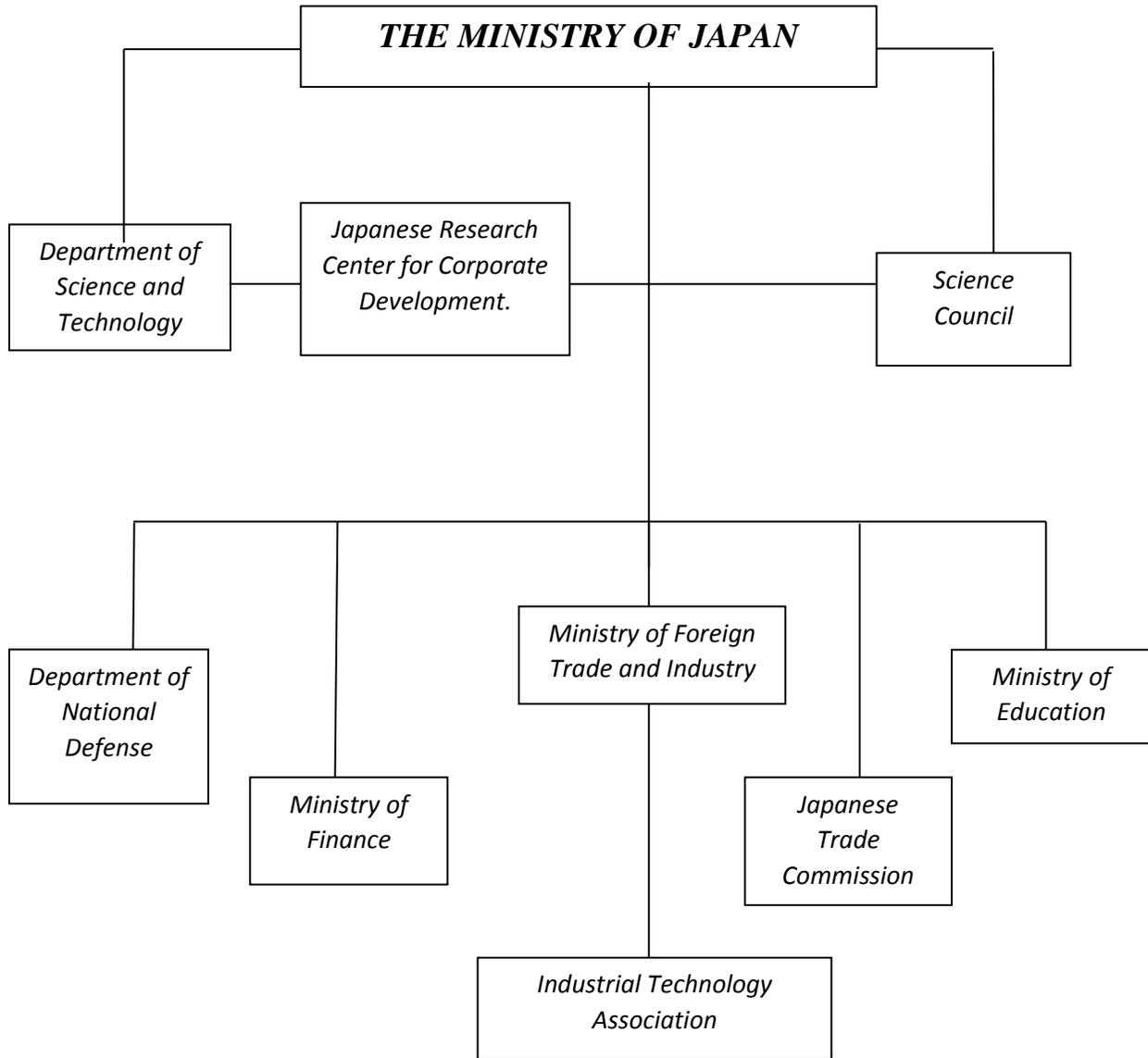


Fig. 1: State management of innovative activities in Japan

The government-sponsored science and technology policy in Japan is shown in the picture above.

The Ministry of Foreign Trade and Industry plays an important role in defining the strategy of industrial development in Japan, in the development and implementation of industrial ITCI. The Department of Science and Technology oversees the implementation of specific ITS directions.

The Japan Industrial Technology Association is subordinated to the Ministry of Foreign Trade and Industry, which imports and imports licenses. Japan has a long-term program for scientific and technological advancement, encouraging applied research and purchasing licenses from abroad.

The state policy is currently aimed at turning Japan from an importing country into an exporting country. While the existing markets have been dominated by the low cost and high quality of their products in comparison with foreign competitors, today they have a more complex task - creating new markets while maintaining the high quality and affordability of their products.

The Ministry of Foreign Trade and Industry of Japan is not only responsible for defining general and sectoral strategies of foreign trade and industry, but also having a large set of tools and methods at their disposal and able to elaborate strategies. Japan uses traditional economic and administrative methods of impacting exports and imports, including preferential export crediting and insurance, partial taxation of exporters, and state support to exporters.

These include:

- *Targeted allocation of the financial resources provided by private banks and their concentration in the priority sectors of the economy;*
- *Assistance to companies in purchasing advanced foreign technologies;*
- *Control over the exchange of scientific and technical achievements of foreign countries.*

The Japanese model of integration of science, production and science-based technology, which includes ITTI and science-intensive production, is aimed at creating new technopoles cities in general.

The Technopolis Project is an important part of the Japanese government's six-step strategic program. Its main purpose is to retain its strong position among the technological leaders. The project was developed by central and local authorities and academic staff on the initiative of the Ministry of Foreign Trade and Industry of Japan.

According to the American technologist of Japan Sh.Tatsuno, “the strategy of technopoles is the strategy of penetration into new areas of activity based on the development of the system of regional centers of high technological level. In other words, this is a strategy for the intellectualization of the whole Japanese economy.”

The main peculiarities of the development of the Japanese economy are the further concentration of industrial production and firm capital on innovations, the transition to resource-saving technologies based on microelectronic technology, and the priority of the dialer and processing industries. The main and advanced branches of national economy are: manufacture of computer science, electronic equipment and integrated circuits.

As a result of innovative activity, per capita GDP is the world's largest in terms of resource efficiency, economic development among industrialized countries and life expectancy.

III. RESULTS

Features of EU countries include: state control over natural resources, high cost of land and labor, high population density, high production technological level, positive attitudes towards information, culture, historical traditions, the cost of essential foodstuffs; use international and European standards in production management; product certification; Indicative planning of innovative activities; development of science-intensive industries; High concentration and cooperative production, and, as a consequence, higher living standards in these countries.

In the EU countries, much attention is paid to the promotion of innovative activities. The main areas of innovation policy in the European Union are:

Production of a single antimonopoly law:

- *Use of a machine accelerating system;*
- *Preferential taxation of R&D;*
- *Promotion of small-scale business;*
- *Direct financing of innovations in the field of model technologies;*
- *Encourage collaboration between universities, science and firms that produce science products.*

IV. CONCLUSION

The basis for innovation in the European Union is the "Technology, Innovation and Exchange Infrastructure Development Plan" adopted in 1985. The main purpose of this paper is to accelerate and simplify the process of introducing research results at national and higher levels into finished products and to promote the dissemination of innovation in the European Union. In the section "Interstate cooperation in the field of innovation" it is planned to establish and operate a functional consultancy on innovation management and technology sharing.

The third section focuses on the creation of an innovation and technology information sharing system, on improving the patent system, unification and standardization, and the fourth section on measures to increase the innovation capacity of the least developed countries (Greece, Ireland).

Since 1988, the European Union has implemented a program "VELYU" to disseminate the results of the STIs.

To prevent the decline of European countries' share in the world high-tech markets, the following was adopted:

EXPRIT - European Strategic Research Program on Information Technology, adopted in 1984 (involving 250 companies and 3,000 researchers). Research on advanced communication methods in Europe, adopted in RASE 1985.

EVRIKA is a comprehensive program adopted by France in 1985. Its purpose is to encourage large-scale European industrial enterprises that are able to resist competition by American and Japanese corporations, to organize work in six areas of the European ITCI, to coordinate: optronics; new materials; high exposure, powerful lasers; particle accelerators, artificial intelligence.

The supreme body of the eurozone is a biennial conference of ministers of member states. The working body is a Brussels secretariat, consisting of 7 experts and 6 technical staff.

The European Information Center (EAM) was established to improve the information support of the SRISI, which consisted of 21 groups based in the UK in 1995 and 210 groups in other European countries. EAM is funded by the European Union by 25%, and the remaining 75% is funded by sponsors and paid services.

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