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# TECHNOLOGICAL PARKS AS A MECHANISM FOR THE IMPLEMENTATION OF INNOVATION POLICY OF THE STATE

**Introduction.** The level of the technological development is one of the main factors, which defines the degree of social and economic development of the state, its economic and political independence.

Unfortunately, due to the problems connected with the becoming of Ukraine as an independent state, struggle of different political trends, branches of power, the economic crisis, which has been too long, problems with reforming of property and formation of the market mechanisms, Ukraine essentially has been behind the global economic and technological development. The share of high technological production at the world market is insignificant and does not correspond to the scientific potential of the country.

In conditions of globalization of the world economic system, the search of new, more effective methods and forms of economic management, the role of innovations has been increased in the development of the economy. Key elements of innovative system of the developed countries of the world are zones of high technologies. One of the main kinds of them are technological countries (technoparks), which favour to introduction of innovative processes.

The research object of this article is the technoparks activity as an effective mechanism of implantation of state innovation policy.

The subject of this study is the effect of the technological parks on the development of economy of the country.

The purpose of study is to substantiate the relevance of creation of technoparks for the development of economy of Ukraine.

The problems of innovational development of economy of Ukraine and functioning of technoparks have been studied by many Ukrainian scientists, such as S.O. Tulchnskaya [1], V.I. Tutashunsky [2], A.A.Mazur [3].

**Theoretical framework.** In accordance to Ukrainian legislation, technological park is a legal person or group of legal persons, who operate under the contract about general activities without creating a legal person and without union contributions to create organizational principles of execution of technological parks with the introduction of production high technology development and ensure industrial output of globally competitive products [4].

The main purpose of technoparks is to achieve maximum spatial approximation necessary for scientific research facilities, which is owned by industrial production, the human component of the country's scientific potential, which generates the most favorable conditions for the development of innovate processes. It is though technoparks significantly reduced the decreasing of innovation cycle «science — production — consumption». The proximity of objects, that are part of technopark, promote the convergence of science and industry, increasing the efficiency of investment [2, p.102].

From the main tasks assigned to the parks, in the first place should be following:

1. Accelerating the transfer of results of fundamental and applied research in the sphere of scientific and technological development, and directly into production;

2. Promoting innovation in areas of entrepreneurship, the formation of effective innovation zones due to the involvement of research teams that implement their own development;

3. Implementation of state policy to promote exports from Ukraine's scientific production and its integration into the global economic system.

4. Meeting the needs of the regions in certain types of high-tech products of mass demand, which is the subject of import [1, p.13].

In order to realize technoparks projects legislation of Ukraine provides implementation of the budget program of state support for technology parks by full or partial interest-free loan projects of technological parks and full or partial (to 50%) compensation of interest paid by performers of projects to commercial banks and other financial and credit institutions for project financing of technology parks [5, p.97]. However, in Ukraine, as a rule, the activity of technoparks is financed at the expense of firms that operate in them, bank loans, income from own enterprises and income from the sale of scientific and technical products, sponsorship, etc

**Results.** The practice of work of technological parks during the last nine years confirms their high efficiency in the process of Ukraine's economy (table 1). Parks contribute to the domestic market, reduce dependence on imports, rapidly increasing volumes of export deliveries of high-tech, globally competitive products, create new workplaces and provide an opportunity for the scientists and highly qualified specialists of Ukraine to implement their intellectual potential [3, p.104].

Based on the information given in the table 1 we can conclude, that during the activity of innovative projects, 905 million UAH were transferred by technoparks into the budget and state trust funds, the amount of 505.5 million UAH investments were attracted into Ukrainian economy while the budgetary allocation was 51 million USD. During for nine years of technoparks functioning the sold products amounted to 13.976 million UAH.

I ne indicators of technopark's activity in Ukraine [6]									
Indicators	2000- 2001	2002	2003	2004	2005	2006	2007	2008	2000-2008
Technoparks projects - taken	60	29	11	8	0	0	2	6	116
- performed	29	52	55	53	51	31	13	11	295
Product sales for the TAs mln UAH, total	177	618	1284	1787	2273	2280	2557	3000	13976
Including exports	74	83	143	294	367	350	311	99	1721
Import volums mln UAH	71	160	287	373	115	129	88	278	1501
Accrued taxes mln UAH, total	32	97	219	289	183	265	231	69	1385
Including listed in the budget	7	37	91	116	149	230	209	66	905
- tax incentives	25	60	128	173	34	35	22	3	480
Created new jobs, units	314	610	623	828	399	166	201	222	3363
In vestment volumes, mln UAH	0.5	0	320	129	11	8	6	31	505,5

The indicators of technopark's activity in Ukraine [6]

Table 1

Implementation of innovative projects has allowed to develop the innovations in the intervening period, to create a stable production of competitive products, constantly increasing its production and transfer to the budget and extrabudgetary funds.

The annual production of innovative products (fig. 1) for projects in the parks has increased by 16.7 times (from 0.18 billion in 2001 to 3 billion USD in 2008). The average annual growth rate of output was about 50% (5-7 times higher than the average for industry) [6].

During this period the sold innovative products have amounted to 12.3 million UAH, of which over 14%—abroad.

The positive balance of foreign economic activity parks totaled 216 million USD (1505 million UAH imports 1721 million UAH — exports).

Budget balance of the technoparks (the difference between payments to the budget and support) was 424 million UAH (contributions to the budget — 906 million UAH, support — 482 million UAH) [6].

Despite the high efficiency of the technological parks, state support is lacking. There are no changes in legislation and the reduction of financial support. As a result of suspension of the Law of Ukraine «About special regime of technological parks» in 2005, there are such consequences as:

1. Number of active projects parks decreased 7-fold (from 108 to 14);

2. Implementation of innovative products in the special-regime in the I quarter of 2008 compared with I quarter of 2007 decreased by 3,6 times (from 560 to 155 million USD);

3. Payments to the budget and the state trust fund in 2006 started to decline;

4. Reducing the volume of exports from 2006.

The result of the deterioration in spite of current legislation conditions of the parks is also a loss of confidence of foreign and domestic investors in the stability of the legal framework of innovation activity in

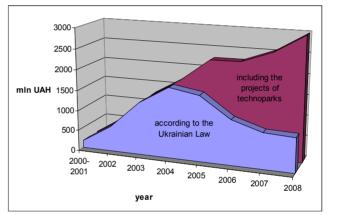


Fig. 1. The annual volume of sales [6]

Ukraine and the collapse of their participation in the financing of risky innovation projects, which leads to a decrease in innovation in general.

In order to continue the «innovative way of development» of the state, it is necessary to renew and develop the activities of technology parks further.

The operations to save the parks, which are necessary to ensure the earliest possible date, belongs the demand for the unconditional implementation of the provisions of the Law of Ukraine «About special regime of technological parks», including the restoration of bills of payment of customs VAT.

For a fundamental change in the situation it is necessary to resume a legal and regulatory framework development and operation of parks, successfully operated in 2000-2004, and include such measures of state support:

1. Exemption from tax;

2. Exemption from VAT;

3. Duty exemption;

4. Exemption from payment of VAT when the goods are imported;

6. Calculations on export-import transactions are conducted in up to 180 calendar days;

7. Accelerated depreciation of fixed assets.

Given that innovation is becoming one of the most important systemic factors of social and economic development, national security, the Government's adoption of appropriate measures to help Ukraine to withdraw from the crisis.

**Conclusion.** The globalization of the world economy favor the continuous development of the economy at all levels and become the driving force of scientific and technological progress. Convergence of material and technical base of industrial production with the intellectual potential of the country, reducing the term cycle «science-production-science» creates favorable conditions for innovation.

Thus, technological parks are very relevant today, as they may have an important role to help Ukraine out of a difficulty. Their work will help:

1. To accelerate the pace of development of hightech products, real support for domestic producers;

2. To increase export potential, reinforce domestic products on the world market of scientific and technical products, to promote the growth of foreign exchange earnings from exports;

3. To form a favorable investment climate, revive investor confidence and increase the flow of both domestic and foreign investment to address the problems of Ukrainian economy;

4. To improve the organization of scientific and technical activities;

5. To contribute to the improvement the financial security research in the technoparks and scientists' pay;

6. To improve the attractiveness of work in social science and scientific services, reduce the outflow of personnel;

7. To create new jobs;

8. To improve work conditions, reduce man-caused impact on the environment.

To conclude it must be said that existing in Ukraine innovative structures in the form of technology parks are in need of development, government support and the availability of investors willing to invest in new developments.

Years of experience of the world leading technological parks, growing needs in the development of innovations and technologies that define the economic image of Ukraine in the future, as well as limited use of industrial resources, all this proves the need for the creation of technological parks in order to the further the development of innovative economy.

#### References

1. Тульчинська С. О. Роль науково-технологічних парків у розвитку інноваційних процесів / С. О. Тульчинська, Р. В. Тульчинський, М. О. Змієнко // Проблеми науки. — 2008. — №10. — С. 13—17. 2. Туташинський В. І. Технологічні парки України: результати роботи та проблеми діяльності / В. І. Туташинський // Наука та інноваці: Науково-практичний журнал. — К. : Видавничий дім «Академперіодика» (Україна), 2005. — №2. — С. 101—108. З. Мазур А. А. Новый этап в жизни украинских технопарков / А. А. Мазур // Наука та інновації: Науково-практичний журнал. — К. : Видавничий дім «Академперіодика» (Україна), 2006. — №2. — С. 102—112. 4. Закон України «Про спеціальний режим діяльності технологічних парків»: остання редакція від 12.01.2006 р. № 3333-IV [Електроний ресурс] / Верховна Рада України. — Режим доступу : http:// zakon.rada.gov.ua/cgi-bin/laws/main.cgi?nreg=991-14. 5. Діяльність технопарків в Україні, 2007 рік (за даними Міністерства освіти та науки України) // Наука та інновації: Науково-практичний журнал. — К. : Видавничий дім «Академперіодика» (Україна). — 2008. — №5. — С. 97—101. 6. Технопарк IEЗ ім. Е. О. Патона [Електроний ресурс]. — Режим доступу : http://www.tp.paton.kiev.ua/about/publis.php.

Maltseva S. V., Piddubna O. A., Khomenko Ya. V. Technological parks as a mechanism for the implementation of innovation policy of the state

The article presents the concept of technopark, his primary purposes and tasks. The indicators of technopark's activity in Ukraine are analyzed. Urgency of creation of technological parks for maintenance of a sustainable development of economy of Ukraine is proved.

*Key words*: technological park, innovation activity, investments, investor, high technological production, export potential.

#### Мальцева С. В., Піддубна О. А., Хоменко Я. В. Технологічні парки як механізм реалізації інноваційної політики держави

У статті розглянуто поняття технопарку, його основні цілі та задачі. Проаналізовані показники діяльності технопарків в Україні. Обґрунтована актуальність створення технологічних парків для забезпечення стійкого розвитку економіки України.

*Ключові слова:* технологічний парк, інноваційна діяльність, інвестиції, інвестор, високотехнологічна продукція, експортніи потенціал.

### Мальцева С. В., Поддубная О. А., Хоменко Я. В. Технологические парки как механизм реализации инновационной политики государства

В статье рассмотрено понятие технопарка, его основные цели и задачи. Проанализированы показатели деятельности технопарков в Украине. Обоснована актуальность создания технологических парков для обеспечения устойчивого развития экономики Украины.

Ключевые слова: технологический парк, инновационная деятельность, инвестиции, инвестор, высокотехнологическая продукция, экспортный потенциал.

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