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THE EXPERIENCE OF THE US AND THE EU IN THE FIELD OF TRANSFER OF OBJECTS OF INTELLECTUAL PROPERTY

The transfer of intellectual property (IP) is one of the leading directions of scientific and technical policy of all developed countries of the world and ensures their accelerated development. The peculiarity of the IP transfer is the need to combine two absolutely different areas: science and business. The basis of the commercial success of the IP transfer is the legal and financial support of the research and innovation sphere, and especially the sphere of the OIP transfer [1-17]. Developed countries are characterized by high knowledge-intensive indicators, which are provided by a significant share of the private sector in the national expenditure on research. Such indicators show the maturity and balance of national innovation systems.

The global global trend of the last 10-15 years has been a gradual increase in government spending on financing innovation. The leaders in financing innovation activities are Sweden - 3.82, Finland - 3.5, Japan - 3.50, USA - 2.57, Germany - 2.51, Austria - 2.45, Denmark - 2.13% of GDP. For comparison: in Ukraine this indicator is 0.96% (1.7% at the legislative level, but this indicator is not fulfilled year after year). Note that the GDP of Finland or Sweden is ten times higher than the GDP of Ukraine [6, 7, 8].

With the general trend of increasing the role of the state in the management of innovation in various countries has its own specifics.

The outpacing growth rates of research expenditures in China and India will lead, by the end of the forecast period, to a significant convergence of their knowledge-intensive indicators with those of developed countries. If current trends continue, they will significantly outrun Russia and Ukraine (Table 1).

Table 1 - Financial security of the leading countries and regions of the world (the ratio of the amount of expenditure on research to GDP),% [6, 8]

Years	Country							
	USA	Japan	EU-15	EU-27	Russia	India	China	Ukraine
1995	2,51	2,7	1,80	1,72	0,97	0,90	0,61	1,38
2000	2,72	2,9	1,89	1,80	1,05	0,95	1,01	1,25
2005	2,72	3,2	1,97	1,87	1,25	1,45	1,51	1,12
2015	2,57	3,1	1,92	1,85	1,14	1,24	1,65	0,96
2020 (forecast)	3,0	3,5	2,3	2,2	2,25	2,40	2,5	1,43

The experience of the USA is interesting in the area of introducing the mechanism for the transfer of the IP to the structure of the state economy. Since 1980, the US Government has transferred all its rights to the results of scientific and scientific-technical developments carried out at the expense of budget funds to implementing organizations and provided tax and other benefits to firms using innovations in their production. In addition, in all federal laboratories with more than 200 employees, special IP transfer offices were established, in which at least one full-time employee was required to work. The organization was supposed to allocate up to 3% of funds from the budget for financing innovations to finance the activities of the office. As a result, the effect was overwhelming: over the course of several years, the number of patents issued increased tenfold, and the number of licenses sold hundreds of times. The annual income of the United States, which controls 43% of high-tech products in the world, from the export of licenses and patents is estimated at 960 billion US dollars. In Germany - 520, Japan - 400, Russia - $ 17 billion, Ukraine - $ 3.2 billion, Belarus - $ 300 million, respectively. If we recount these figures per capita, then we get that the per capita income from the export of licenses and patents, respectively, is: in Germany $ 6,100 / person, USA - 3,200, Japan - 3,100, Russia 750, and Belarus - $ 30 / person. According to this indicator, Ukraine is at least 100 times behind the leading world powers [6, 8].

The prospects for resource provision of scientific research in the EU look somewhat uncertain. As is known, the EU region as a whole lags behind the United States and Japan in the level and dynamics of high-intensity technology, the speed of innovative development. Back in 2000, in Lisbon, it was decided to use this reserve of economic and social development more widely, to accelerate the growth rates of financial and personnel support for scientific research and by 2015 to bring them to the level of leaders. However, in 2005 it became clear that these decisions could not be implemented, and their implementation was postponed to 2015. At the same time, the current indicators show that the gap in the innovation sphere continues to deepen. European companies are relatively poor in mastering high-tech industries - biotechnology, pharmaceuticals, information technology. Their positions are most stable in the mid-tech areas - the automotive and aircraft industries. The outpacing growth of government spending on research in a number of new areas (alternative energy sources, nanotechnology, new materials, etc.) has not yet become a positive signal and reference point for private business.

Currently, the bulk of the world's scientific and technical resources are concentrated in India, China, OECD countries and Russia. In 2004, the United States accounted for about 30% of global spending on research, the EU - about 25%, and Japan - 13% (Table 2). The leaders of the main scientific and technical centers (USA, EU, Japan) will be added to the dynamic countries of Asia, primarily China and India [2, 6, 8].

Table 2 - Share of countries and regions in research funding,%

Countries and Regions	Годы			
	2004	2005	2015	2020 (forecast)
Europe	24,6	23,8	23,4	20.0
North and South America	37,8	37.5	37,1	35,0
USA	32,7	32,0	31.3	28,0
Asia	37.6	38,7	39,5	45,0
China	11,8	12,8	13,6	20,0
Japan	13,0	12,6	12,4	12,0

In the forecast period, the science-intensive production will increase as the ratio of the cost of research to the cost of production, capital investment per researcher. The greatest indicators of knowledge-intensiveness (the ratio of R&D expenses to sales) are now characterized by companies representing the pharmaceutical industry, the production of communications and services in this area, instrument-making, software. In world practice, in connection with the increasing role of the state in financing innovations, there is clearly a tendency to increase the research intensity of products. At present, it is characterized by the following data: in EU countries - 35, USA - 25, Japan - 11, Singapore - 7, Korea - 4.5, China - 2, in Russia - 0.13, in Ukraine - 0.05% from GDP.

The main trends in resource provision of scientific research at the beginning of the 21st century in developed countries will probably continue to operate without major changes over the next 10–15 years, namely: cost increases mainly due to the business sector, expansion of private business cooperation with universities and state research centers, reduction of direct state financing of private industry and increased indirect incentives. The ratio of private and public sectors in the financing of scientific research will tend to a ratio of 70:30, but with fluctuations reflecting the specifics of individual countries (Table 3) [4, 6, 8].

Table 3 - Volumes of research funding in selected countries

Country	Science funding			Number of researchers	Costs per researcher
	Total	Business	State		
	million $	%	%	чел.	тыс.$
USA	284584,3	63.1	31.2	1261227	225,64
Japan	114009,1	74.5	17.7	675330	168,82
Germany	57065,3	66.1	31.1	264721	215,57
France	37514,1	52.1	38.4	186420	201,23
Italy	17698,6	NA	NA	71242	248,43
Canada	19326,5	46.2	35.4	112624	171,6
China	84618,3	60.1	29.9	862108	98,15
South Korea	24379,	74.0	23.9	151254	161,18

Sweden	10364,0	71.9	21.0	45995	225,33
Israel	6611,2	70.1	24.4	no data	no data
Finland	5186,2	70.0	25.7	41724	124,3
Mexico	3623,7	29.8	59.1	21879	165,62
Russia	16926,4	30.8	59.6	487477	34,72
Ukraine	1233,5	42,3	57,7	89650	13,9

Legal support of the sphere of transfer of intellectual property rights can be illustrated by the example of the development of US law in this area.

The purpose of US law and policy in the field of IP transfer is to facilitate the transfer of IP, which were developed at the expense of the federal budget, to ensure sustainable growth of the US economy and increase the competitiveness of American industry. Legislative acts of the United States in the field of IP transfer regulate the following range of relationships in this area:

1. Attracting foreign experts and organizations to solve technological problems facing the American industry;
2. Transfer of IP as a duty;
3. Transfer of intellectual property items, developed at the expense of the federal budget, American industry;
4. Transfer of intellectual property items developed at the expense of the federal budget to small businesses;
5. Dissemination of information in the field of IP transfer;
6. The entry into force of the model agreement on joint research and development;
7. Creation of organizations responsible for the transfer of the IP and ensuring their financing;
8. Property rights to inventions and rewards for the use of inventions.

It should be noted that in 1975-1985. within the UN, a draft International Code of Conduct in the field of OIP transfer was developed, which determined the state regulation of the international transfer of IP, the mechanism for concluding agreements on the transfer of IP, etc. Although the Code was not adopted, it played a significant role in shaping the uniform national legislation in many countries of the world. Analysis of the US experience in creating IP transfer centers has shown that mainly organizations mediators of the innovation market arise within the framework or with the participation of leading universities and scientific organizations. Foreign organizations that carry out research and development, identify the following objectives of the center of the IP transfer:

• increasing the efficiency of commercialization of research results by facilitating cooperation between developers, entrepreneurs and investors;
• creating closer ties with industry;
• promoting the growth of the organization’s revenues from the sale of IP.

The importance of clear and basic regulations on property rights has never been in doubt in Europe, since only the undisputed owner of rights can introduce them into commercial activities. However, the question of who should own these rights remained unresolved for some time.

From the perspective of a European perspective and legislative practice, responsibilities and incentives are always considered as closely related. In a heterogeneous European context, the responsibility to carry out commercialization activities is almost without exception placed on the owner of the ownership of scientific research. However, the notion of responsibility is not synonymous with the obligation to commercialize or transfer results.

Most European countries, as well as the European Union itself, provide budget funds for research projects only in conjunction with the obligation to disseminate the results. Distribution is not necessarily carried out through commercialization. There is also no obligation to ensure the protection of intellectual property as a result of research results (although incentives to protect property exist and are welcome; an agreement on the future state of ownership of potential results is often encouraged) [3, 6].

Since the activity on the use of scientific research for economics does not contradict the main tasks of science or the current legislation, the additional income (especially for researchers, but also for institutions) also does not conflict with the main tasks of scientific institutions or researchers. On the contrary, it is considered as a necessary impetus to stimulate successful transfer of IP (with some exceptions - for example, in France, the researcher has the status of a public servant and corresponding privileges, therefore the transfer is encouraged, but there are a number of restrictions for public servants). In some countries, for example, in Ireland, this income from the transfer of IP enjoys substantial tax breaks, i.e. additional incentives.

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