

## ANALYSIS OF THE ASPECTS TO INCREASE THE INNOVATIVE POTENTIAL OF THE ECONOMY THROUGH THE COMMERCIALIZATION OF NEW SCIENTIFIC DEVELOPMENTS

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**Abstract.** *According to our analysis, during 2020 the total 254 organizations have carried out scientific research and experimental-constructive developments. The main share of the number of organizations that performed scientific research and pilot-constructive development in economic activities was 155 in professional, scientific and technical activities, 68 in education, and 6 in the manufacturing industry.*

**Key words:** *product, new scientific developments, innovation, commercialization, organizational-economic mechanism, innovative activity.*

If we consider the organizations that have carried out scientific research and experimental-constructive developments in the cross-section of sectors; 108 in the public sector, 79 in the business sector, 65 in the higher education sector and 2 in the private non-profit sector.

In 2020, the amount of scientific research and experimental design developments carried out by organizations on economic activities and types of work amounted to 992,029.1 million soums, this indicator

In 2019, it amounted to 853,404.4 million soums. In 2020, expenses for scientific research and experimental design development in the fields of science will be 838,633.8 million. amounted to 236,352.4 million soums compared to 2019. increased to soums.

According to the innovative activities of enterprises and organizations, the number of enterprises and organizations that produced innovative products, works, and services on their own in 2020 was 6,771, and compared to 2019, it increased by 2,855. In terms of types of economic activity, the highest share was observed in the manufacturing industry, where innovative products, works, and services were produced in 2599 organizations. The volume of innovative products, works, services produced by own efforts (without VAT and excise duty) totals 31142795.9 mln. amounted to soum. Compared to 2019, expenses for technological, marketing and organizational innovations increased by 226,493.7 million soums in terms of financing sources, totaling 6,829,968.6 million soums. As a positive change, it can be observed that 970,973.2 million soums were financed with loans from commercial banks.

The total number of technological innovations introduced in 2020 was 4011. Of the total introduced innovations, 3017 are products, 994 are process innovations, 202 are marketing innovations, and 77 are organizational innovations.

Regarding the commercialization and transfer of scientific developments and technologies, monitoring was carried out mainly on the state of commercialization of scientific developments.

Table 1

**Target indicators of the priority directions of increasing the innovative potential of the economy by increasing the scale of commercialization**

r/p	Priority tasks	Unit of measure	2020 year	2021-2022 year	2030 year
1.	Increasing the indicator of the average amount of financing of scientific projects.	million soum	798,2	933,5	1200,0
2.	Providing scientific research institutions with a modern laboratory.	piece	19	18	47
3.	Doubling the publication of articles within the framework of scientific projects.	piece	1143	1398	2000
4.	Increase the share of commercialization of innovative developments in the territory of the republic by 70% in the volume of total commercialized developments.	Percent	50	60	70
5.	Strengthen cooperation with the private sector and increase the share of private capital in financing scientific research up to 50%.	Percent	38	40	50
6.	Increase the number of investment companies financing innovation projects to 25.	piece	12	15	25
7.	Increase the number of projects in the single database of innovative projects and startups to 1000.	piece	550	700	1000
8.	Increase the number of prospective commercialized developments to 465 in 2030.	piece	115	155	465
9.	Increasing the share of funding in innovation funds in the structure of higher education institutions.	billion soum	20	25	70
10.	Organization of Foresight centers taking into account international experience.	piece	5	10	15
11.	To attract new residents to the Yashnabad technopark and increase their number to 80.	piece	40	45	80
12.	Organization of innovative infrastructure objects (innovation centers, seed clusters,	piece	4	8	15

№/p	Priority tasks	Unit of measure	2020 year	2021-2022 year	2030 year
	innovative scientific research centers).				
13.	Establishing a school of agronomists and retraining 80 specialists on its basis until 2030.	person	30	50	80
14.	Establishing the Association of Agronomists and providing modern services to 80 agricultural enterprises by 2030.	piece	30	50	80
15.	Organization of aerobiological monitoring system and installation of flower dust traps in all regions of the Republic of Uzbekistan.	piece	10	10	10
16.	Increase the number of young scientists sent for internships abroad by 200% by 2030.	Percent	110 (234)	120 (256)	235 (500)
17.	By 2030, introducing 20 innovative solutions based on modern and high production to manufacturing enterprises in our country.	piece	10	20	20
18.	10 overseas registration and maintenance of intellectual property rights.	piece	5	10	20
19.	Increasing the number of international joint scientific projects by 1.8 times (125).	ta	68	93	125
20.	2.2 times increase in funds of projects of regional programs related to scientific activities.	billion soum	15,84	21,5	28,0
21.	To increase the number of teams of talented and enterprising young people to 100 members of the Youth Academy.	person	60	80	100
23.	C.A.T. Science Accelerator to regularly increase the number of participants in scientific start-up acceleration programs.	piece	80	100	1000
24.	Regularly increasing the number of users of proofreading service.	piece	350	550	800
25.	Expanding the coverage of republican and international participants in events held within the framework of the "InnoWeek.uz" week	percent	30%	40%	50%

The commercialization of 43 scientific developments approved in accordance with the decision of the President of the Republic of Uzbekistan "On additional measures to

increase the efficiency of commercialization of the results of scientific and scientific and technical activities" dated July 14, 2018 PQ-3855 was launched.

Out of 43 scientific developments approved in accordance with the decision, 19 developments in 2018-2020 will cost 22.3 billion. was commercialized for soums (Appendix 2).

From this, 5 developments were commercialized through the innovative company, and 14 developments were commercialized through business contracts.

According to the current commercialization of scientific developments, a total of 132 scientific developments have been commercialized this year. Of these, 40 scientific developments have been commercialized as of October 1, 2020, with a total value of 34.6 billion. products were produced in the amount of 25.9 billion soums. products worth 1.6 billion soums were sold. Soum services are provided (Appendix 2, Table 2.1).

In 2020, the volume of products produced by commercial scientific and innovative developments will be 40 billion. reached soums, increased by 10% compared to last year (Table 2).

Table 2

Information about commercialized scientific and innovative developments in 2020

Indicator name	Unit of measure	2020 year			
		I-quarter	I-semi-annual	9th month	Year
Increasing the volume of products produced within the framework of commercialized developments.	млрд. сѸм	10,0	20,	30,0	40,0

In this case, 4 developments were commercialized through the innovative company, 4 developments through license agreements, and 32 developments through business contracts. Of the commercialized scientific developments, 33 developments belong to scientific-research institutions of the Academy of Sciences, 5 developments belong to higher education institutions and 2 developments belong to branch scientific-research institutions.

40 commercialized developments were implemented in the following areas:

In the field of agriculture - 15;

In industry - 13;

In the field of pharmaceuticals - 8;

In the field of health - 2;

In the field of construction - 1;

In the field of oil and gas - 1 development.

In addition, commercialization of 92 scientific developments has been launched, 65 scientific developments belong to the Academy of Sciences, 12 scientific developments belong to higher education institutions, and 15 scientific developments belong to network scientific research institutions (Appendix 3).

92 commercialized developments are being implemented in the following areas:

In the field of pharmaceuticals - 33;

In the field of agriculture - 28;

In the field of industry - 11;

In the field of oil and gas - 6;

In the field of construction - 4;

in the field of health - 3;

In the field of food - 3;

In the textile industry - 2;

In the field of water management - 1;

Poultry industry - 1 development.

In the field of commercialization of scientific developments and organization of production:

First, with the decision of the President of the Republic of Uzbekistan No. PQ-3855 dated July 14, 2018, a new system of commercialization of scientific developments was launched with the participation of the "scientist-entrepreneur-bank" trio. Out of 43 scientific developments approved in accordance with the decision, 19 developments in 2018-2020 will cost 22.3 billion. was commercialized for soum.

In connection with the implementation of this decision, the "customer-researcher-investor" portal was launched in order to sort out scientific and innovative developments and attract investors for their commercialization, and more than 529 developments and 167 problems were registered. Negotiations were held with the participation of the authors of 10 innovative projects included in the database of the portal, as well as local and foreign investors. Currently, the implementation of 3 developments has started.

Secondly, as of November 1, 2018-2020, the total number of commercialized innovative developments has reached 132, of which 49 innovative developments have been commercialized, and 92 developments are being worked on. Today, the total value is 73.4 billion. products were produced in the amount of 59.4 billion soums. Soum worth of product was sold. 8 of the scientific developments were commercialized on the basis of innovative companies, 6 on the basis of license contracts, and 35 on the basis of business contracts.

Thirdly, as a result of attaching scientific research institutions to consumer organizations, a meeting was held with the heads of scientific research institutions of 15 ministries, offices and economic associations attached to 17 scientific research institutions, "Roadmaps" were developed to support scientific and technological development. 143.9 bln. Agreements were reached on the allocation of funds. 21.1 billion

as of September of this year. It was ensured that the amount of soums will be transferred to the relevant scientific organizations.

Fourth, on September 16-18, 2020, an exhibition of innovative developments proposed for commercialization was organized in order to ensure the integration between science and production of agricultural scientific organizations. More than 300 visitors, 11 HEIs, 12 Academies of Sciences and 18 sector research institutes and inventors of scientific centers presented 203 innovative developments at the event. Also, representatives of 17 farms and 4 branch enterprises participated in the event, and within the framework of the first 20 agreements on cooperation, 1.7 bln. contracts were signed for the purchase of products worth soums.

On November 18-19, 2020, an innovative exhibition of scientific developments used in the field of pharmaceuticals and medicine and ready for commercialization of scientific organizations was held. At the event, 100 innovative developments will be presented by the inventors of 11 Higher Education Institutions, 7 Academies of Sciences and 9 network research institutes and scientific centers. Among the presented scientific developments, 42 medicinal products, 17 equipment, 10 active substances and 22 objects ready for commercialization in the form of methods and methods, as well as 8 software products were presented and 8 cooperation memoranda were signed.

In order to ensure the implementation of the tasks set by the President of the Republic of Uzbekistan on the protection of intellectual property objects, on November 11-13 and November 18-19, 2020, the Ministry organized an "Electronic Fair" of inventions, useful models, industrial samples, breeding achievements. At the fair, information on the objects granted a patent by the Intellectual Property Agency and about 400 developments included in the "Promising Inventions and Utility Models" collection in the last 2 years was placed.

Innovative projects "Innovative rod" and "Electronic call" were developed and put into practice.

"BioTesLab" enterprise, which produces reagent kits for clinical biochemical analysis, was established. Production of "Antigen Cardiolipin" kit has started, 3 kits - glucose, ALT, hemoglobin are being prepared for production.

On June 17-19, 2020, the "Fair of Scientific Innovative Ideas and Developments" was held in Bukhara. More than 80 projects were demonstrated within the framework of the fair, from which 55 fundamental, practical and innovative projects were selected.

In order to develop innovative entrepreneurship, attract investors to the field, and commercialize scientific results, the International Week of Innovative Ideas - "InnoWeek" exhibition is being held. In 2018, scientists, investors and entrepreneurs from more than 20 foreign countries participated in this week, and in 2019, 257 foreign representatives from a total of 96 organizations from 34 countries participated.

During the week, cooperation memoranda with companies of Armenia, South Korea, Israel, Poland, Turkey, Russia, China and India and the total value of 109.5 mln. investment contracts worth USD were signed.

The international robotics competition "The Frist OIC Robotics Challenge" was held for the first time as part of "InnoWeek.uz-2019" in cooperation with the Organization of Islamic Cooperation. 160 foreign participants from 24 countries took part in it.

A total of 22,523 observers from 86 countries visited the "InnoWeek.uz-2020" online platform <https://www.innoweek.uz/>, of which 5,599 watched the exhibition directly.

The total value of South Korean and Turkish companies is 236.6 million. Memorandums of cooperation and investment agreements were signed.

In terms of patenting and licensing issues, the application for a foreign patent of 1 development out of a total of 15 scientific developments selected for patenting abroad by scientific research and higher education institutions was submitted to the Intellectual Property Agency.

Formation of the patent database for intellectual property objects created at the expense of the State budget of the Republic of Uzbekistan has been launched. From 2018 to November 1, 2020, information was collected on a total of 344 inventions and 162 utility models.

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