

Belarusian Innovation Fund

Strategy of innovative development of the Republic of Belarus

Deputy Director of Belinfond

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MAJOR RESULTS OF THE STATE PROGRAM OF INNOVATIVE DEVELOPMENT OF THE REPUBLIC OF BELARUS FOR 2007-2010

Level I — creation of new enterprises and top-priority productions;

Level II — creation of new industries;

Level III — upgrading of existing industries (industrial innovation development program, regional programs of innovative development, state scientific and technical programs).

The creation of new enterprises and industries, upgrading of industries	Level I	Level II	Level III	TOTAL
Provided for by Presidential Decree	100	386	430	916
Commissioning in 2007-2010 (included 2010)	131 (39)	352 (125)	502 (171)	985 (335)
Upgraded industries by SSTP	V-P		191 (plan 179)	26.0

Product produced

Created (modernizationed) jobs

Mastered the new technology by SSTP

Aggregate output using the new technologies mastered in SSTP

23,97 trillion rubles

15 500

4,93 trillion rubles

Ministry of industry



Manufacture of automatic washing machines "Atlant"

Production of hot-rolled seamless pipes

RUE "BMZ"



Household Appliances

JV "Midea-Horizont"





Ministry of Industry



Production of tractors "Belarus 921"

UE "Smorgon Aggregate Plant"

Production of tractors "Belarus 320"

RUE «Bobruisk plant of tractor parts and units»



Production of the new trucks MAZ-6430 and the buses of Euro-3 level





Ministry of Architecture and Construction

Organization of production of float glass

JSC "Gomelsteklo"







Department of Energy



Creating a CHP on local fuels in Pruzhany

RUE "Brestenergo"

Creating a mini-CHP boiler GPA Zhlobin

RUE "Gomelenergo"



Department of Energy

Creating a mini-CHP Boiler GPA "Zhlobin"

RUE "Gomelenergo"









Lukoml thermal power station, the power unit № 2

UE "Vitebskenergo"

Lida CHP
UE "Grodnoenergo"





Minsk Regional Executive Committee

Reconstruction of Sakovschinskaya HPS, Volozhin District

Construction of hydroelectric Voykovskaya, Logoisk District

"Association of Minskmeliovodhoz"





Minsk CHP-3 (1st start-up complex)

RUE "Minskenergo"



The construction of mini hydropower station on the Gorenichskaya river, Berezinski district

"Association of Minskmeliovodhoz"



Concern "Belbiopharm"

Reconstruction of infusion solutions production

RUE "Nesvizh Pharmaceutical Plant"









Reconstruction and technical re-equipment of tablet production

RUE "Belmedpreparaty"

THE STATE PROGRAM OF INNOVATION DEVELOPMENT OF THE REPUBLIC OF BELARUS FOR 2011 - 2015

The main objective - creation of globally competitive, innovative, high-tech, resource and energy-saving, environment-friendly economy, ensuring sustainable socio-economic development of Belarus and on this basis, increasing the quality of Belarusian people life

KEY TASKS

- creation of new high-tech and knowledge-intensive sectors (biotechnology, nanotechnology, microelectronics, technology, fine chemistry, information technology, new materials, laser-optical technologies, communication technologies, alternative energy, genetic engineering, etc.)
- creation of new industries, reconstruction and modernization of existing ones in export-oriented industries (pharmaceutical, chemical, agricultural machinery, wood-working, etc.)
- creation of new multi-holdings, cluster structures, entry into the world's global corporations and alliances, attracting TNCs, reducing the material-energy and import-production, increasing its ecological safety
- regional innovation development acceleration
- increasing the export potential of Belarus, occurrence of the top 30 most competitive countries
- formation of an innovative society (Innovative education)

THE STATE PROGRAM OF INNOVATION DEVELOPMENT OF THE REPUBLIC OF BELARUS FOR 2011 - 2015 EXPECTATIONS

modernization of the national economy in line with the priorities of scientific and technological activities, including:

- formation of a new segment of the national economy the high-tech knowledge-intensive enterprises and industries, according to V and VI technological structure;
- increasing competitiveness of Belarusian goods (works, services) in the domestic and foreign markets and increasing the number of innovation-active organizations, the share of exports of high technology and high-tech products in total exports

ensuring carrying out the expected measures of the Socio-Economic Development of Belarus for 2011 – 2015, including

- increasing the unit weight of shipped products by innovation organizations, the main economic activity of which, is the manufacture of industrial products in total products shipped to the 20 21 percent;
- increasing the share of innovation-active organizations in the total number of organizations whose main economic activity is the manufacture of industrial products no less than 40 percent;
- growth of domestic spending on research and development to 2.5 2.9 percent of GDP
- growth in exports of high technology and high-tech goods (works, services) at least 7950 million U.S. dollars;

improving the management and efficiency of the national innovation system of the Republic of Belarus (its subjects, the conditions of their interaction and functioning)

PROJECTS OF THE STATE PROGRAM OF INNOVATIVE DEVELOPMENT OF THE REPUBLIC OF BELARUS FOR 2011-2015

Priority directions of innovation development	The number of created enterprises and productions		
Energy and energy efficiency	30		
Agro technology and manufacturing	17		
Industrial and building technologies and production	76		
Medicine, medical engineering, technology and pharmacy	33		
Chemical technology, nanotechnology and biotechnology	21		
Information, communication and aerospace technologies	20		
New materials	4		
The development of transit potential	14		
harmonious exploitation, resources saving and protection of emergencies	3		
National security and defense	17		
Total	235		
Development programs of economic activity or region, state complex target scientific and technical programs, SNTP More than 90			

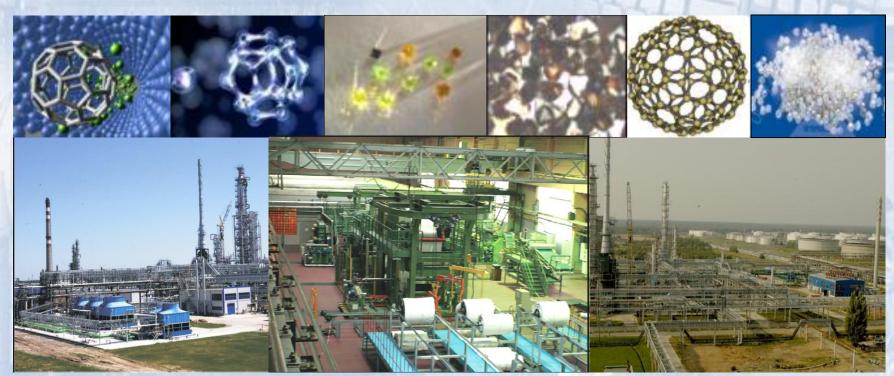
In the field of medicine, medical equipment and technology, pharmacy:

- Reconstruction the production of pharmaceutical substances to bring it into compliance with the standards of GMP;
- Creation the production of tools, implants and submerged steel structures for traumatology and orthopedics;
- Introduction of distance-based counseling electrocardiography telecommunications;
- Implementation of the technology of DNA diagnostic of primary immunodeficiency;
- Introduction of stem cell technology for the prevention and treatment of complications of bone marrow transplantation;
- Organization of small-tonnage production of new pharmaceutical substances.



In the field of chemical engineering, nanotechnology and biotechnology:

- construction of a plant for the production of bleached kraft pulp;
- construction of a delayed coking unit;
- construction of an isomerization;
- creation on the basis of RUE "PA" Belaruskali "chemical plant for complex processing of potassium chloride and sodium chloride.



In the field of energy and energy efficiency:

- construction of nuclear power plants;
- a joint venture for the production of wind turbines;
- construction equipment operating on biogas produced from agricultural waste and industrial production;
- construction of biogas systems at wastewater treatment plants;
- organization of production of heat pumps;
- organization of production of LED technology;
- organization of production of new energy-saving equipment for industrial ventilation systems with heat recovery.



In the field of industrial and construction technologies:

- establishment of production mining trucks with 360 tons of electronic control systems;
- organization of production of 8-cylinder diesel engines up to 725 hp.;
- construction of a plant for the production high-precision and high-strength cast iron;
- construction of plants for the production of flat steel and long steel;
- creation the technological level of production equipment to 65 nm in the production of new generation microelectronic;
- creation industries for corrosion protection of steel by galvanizing;
- organization of the production wood-fiber, chipboard, laminated boards according to new technologies.









In the field of agro-technologies:

- creation of a complex pedigree of 350 score for breeding plants republic breeding material with high genetic potential for RUE "SPC for livestock"
- creating a first-order reproducer to produce pedigree cattle for parenting pig farms with the use of new technologies;
- construction of a new yeast plant, the company "Interferm";
- construction of the FEZ "Brest" plant black caviar (sturgeon), JV "Santa Bremor" Ltd.

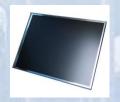
In the field of microelectronics, laser-optical technologies:

- modernization of existing production through the introduction of advanced technologies for the production on the production lineup of digital TVs to LCD panels of different diagonals in the RUPE "The Knight";
- creating the production of optoelectronic technology based on thermal imaging modules and laser systems NPCHUP "LEMT";
- creation of specialized production of components for electronic control systems for hydraulic drives of mobile machines by "Izmeritel".













In the field of Information technology:

- construction of a multiservice telecommunications networks, "Beltelecom";
- modernization and development of networks of fixed broadband access to the Internet with the introduction of advanced technologies WiMAX and LTE;
- implementation of the technology of passive optical networks (hPON) and Ethernet-technology with the installation of Ethernet-switch "Beltelecom";
- the creation of modern facilities and radio communication systems and the development of their production in the Republic of Belarus, "Agat-System";
- introduction of the serial production of the domestic microprocessor system interlocking "Iput" ,EE "BSU transport";
- space Instrumentation (modernization of existing facilities by introducing new and high technology), JSC «Peleng."
- creation and implementation of technology and software and hardware for decoding and processing of remote sensing data, SSI "United Institute of Informatics Problems of NAS of Belarus"









In the field of harmonious exploitation, resources saving and protection of emergencies:

- construction of plants for processing municipal solid waste in Minsk, Mogilev, Brest, Pinsk, Grodno;
- development and implementation of complex modern drilling equipment drilling depth of 200 to 2000 m;
- development of satellite technology in conducting geodetic measurements, land surveying and navigation in the Republic of Belarus
 "Belaerokosmogeodeziya".

In the field of dual-purpose, national security and defense:

- creation of a unified information and navigation system in the Republic of Belarus with the use of GLONASS, GPS, Galileo;
- creation of multifunctional unmanned aircraft systems for special purposes,
 JSC "AGAT-management system" GNU "PTI of NAS of Belarus".

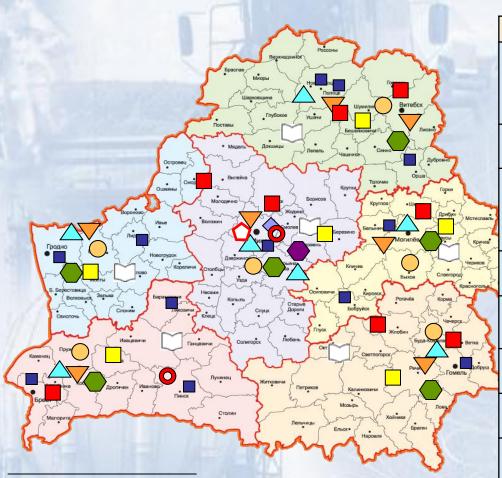








DEVELOPMENT OF INNOVATION INFRASTRUCTURE OF REPUBLIC OF BELARUS



^{*} including a representative of the Republican Centre for Technology Transfer

^{**} in the regions of Belarus has five offices of the Belarusian Innovation Fund

	2005 г.	2009 г.	2015 г.		
elements of innovation infrastructure - science and technology parks - technology transfer centers * - venture capital organizations	4 12 -	10 39 -	17 45 6		
Scientific-Production (theoretical and practical) centers	56	52	60		
Innovation centers, including (Information and marketing, production training, centers of excellence)	15	76	100		
Business incubators	9	25	30		
Scientific and technical library, including factory library	476	490	490		
Innovation-active enterprises	318	381	1000		
High-Tech Park (multifunctional)	1	1	1		
Belarusian Innovation Fund **	1	1	1		
Design and production organizations	20	25	30		
Engineering organizations	5	10	15		

IMPROVEMENT OF LEGISLATION IN THE FIELD OF SCIENCE, TECHNOLOGY AND INNOVATION

- Law of the Republic of Belarus "On state innovation policy and innovation in the Republic of Belarus"
- Law of the Republic of Belarus "On Copyright and Related Rights"
- Law of the Republic of Belarus "On Commercial Secrets"
- Law of the Republic of Belarus "On Amendments and Additions to Some Laws of the Republic of Belarus on matters of innovation policy and innovation"
- Presidential Decree "On measures to improve the protection and exploitation of intellectual property"
- Presidential Decree "On Amendments to the Decree of the President of the Republic of Belarus of October 23, 2006 № 631" (On the structure, functions and number of employees of the local executive and administrative bodies)
- Presidential Decree "On the venture capital companies in the Republic of Belarus"

National Innovation System of the Republic of Belarus MANAGEMENT STRUCTURE

Sources of Financing

 Special purpose budgetary funds (national budget expenditures on scientific. sci-tech and innovation activities, national budget expenses on state capital investments. Belarusian innovation support fund, innovation support funds of the government bodies. other state-run organisations subordinate to the Government, etc)

Commission for state sci-tech policy

Inter-agency export promotion council

Sources of Financing

- Companies' assets
- Borrowed funds
- Foreign investments
- Other sources

Personnel supply for innovation activity: Ministry of Education, State Science and Technology Committee, National Academy of Sciences of Belarus, Higher Certifying Commission, universities, branchwise institutes

PRESIDENT OF THE REPUBLIC OF BELARUS

Sci-tech priorities Decree No 315 of the President of Republic of Belarus of July 6, 2005

- · Resource-saving and energy-effective technologies to produce competitive
- · New materials and new sources of energy
- Medicine and pharmacy
- Information and telecommunication technologies
- . Technologies of manufacturing, processing and storing farm products
- Industrial biotechnologies
- Ecology and rational nature management

State innovation-based programme 2007-2010

Presidential programmes

Economic development programmes and special purpose programmes

Branchwise, corporate and personal benefits to promote innovation development of economic entities

COUNCIL OF MINISTERS OF THE REPUBLIC OF BELARUS

National Academy of Sciences of Belarus. Ministry of Education Committee

State Science and Technology

Ministries. state committees. other government bodies

Regional executive committees, Minsk City Council, Town and regional executive committees

Concept of the National Innovation System

Priorities of fundamental and applied research (Resolution No 512 of the Council of Ministers of the Republic of Belarus of May 17, 2005)

State programme to develop material and technical bases of science 2007-2010

State sci-tech programmes

(list as approved by the President of the Republic of Belarus)

State programme of the Republic of Belarus for intellectual property protection and management 2007-2010

Legislation

- 1. Drawing up and adopting:
- · Law "On innovation activity"
- · Law "On higher learning"
- · Decree of the President of the

Republic of Belarus "On approving the regulations on the procedure of creating innovation infrastructure"

- Introducing amendments and addenda:
- · Law "On the guidelines of the state sci-tech policy
- · Law "On sci-tech information"

Commission for enhancing the competitiveness of economy

Inter-agency small business support commission

System of information and ideological support of the state innovation-based programme (SSTC, National Academy of Sciences of Belarus, Ministry of Information, Ministry of Education, mass media outlets and other bodies)

System of monitoring of innovation development of economic sectors and regions (SSTC, National Academy of Sciences of Belarus)

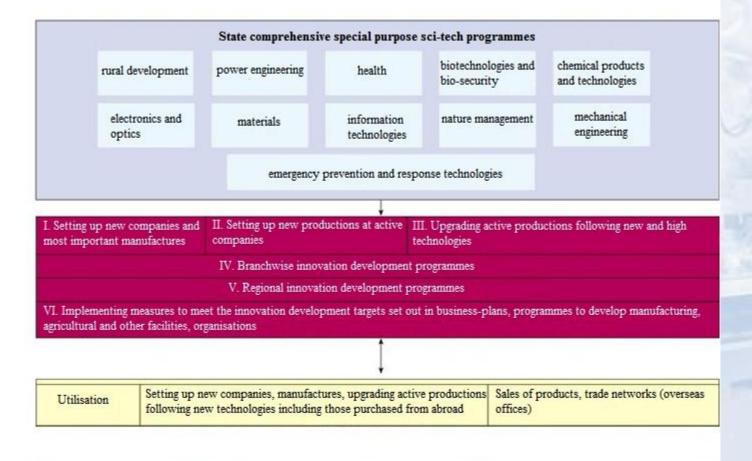
Management and control over execution

State Science and Technology Committee, National Academy of Sciences of Belarus and other government bodies (innovation development departments)

Regional executive committees and Minsk City Council (innovation development department)

Town and regional executive committees (innovation development departments)

Economic entities (innovation development departments and sectors)



Sci-tech support of innovation activities

Industrial companies. Research and production centres. R&D organisations. Institutions of higher learning. High-Tech Park. Science and technology parks. Innovation centres. Centres of technology transfer. Business-incubators. Information and marketing centres. Venture organisations. Science and technology libraries. Sci-tech creative art centres for young people.

INTERNATIONAL SCIENTIFIC TECHNICAL COOPERATION

2010 (agreement signed with 38 countries)

2015 (planned to sign contracts (agreements)

CIS COUNTRIES

Armenia Kazakhstan Moldova Tajikistan Ukraine Russia Turkmenistan

EUROPE

Bulgaria United Kingdom Germany Denmark Italy Latvia Macedonia Poland Romania Slovakia Serbia Turkey

Lithuania

ASIA Vietnam Israel India Indonesia Iran Cyprus China Korea Kuwait UAE Syria

Japan

AMERICA

Venezuela USA

AFRICA

Egypt Libya Sudan South Africa

CIS COUNTRIES

Azerbaijan Armenia Uzbekistan

EUROPE

Slovakia Romania France Czech Republic

ASIA

Indonesia Israel North Korea Libya Malaysia

AMERICA

Argentina Brazil Cuba

- joint innovation centers of scientific and technical cooperation;
- creating conditions for attracting investments in high-tech production and assistance in the establishment of joint ventures in the Republic of Belarus;

The main forms of international scientific technical cooperation:

- assistance in the implementation of international scientific and technical programs approved at the meetings of the intergovernmental commission on scientific-technical cooperation with foreign countries;
- exchange of scientific and technical information and the dissemination of such information to foreign partners;
- participation in international events (Science Days, exhibitions of new techniques and technologies, conferences, seminars, symposia, congresses)
- Hannover Industrial Fair (Hannover, Germany)
- China International Industry Fair (Shanghai, China)
- Vietnam International Industrial Fair (Hanoi, Vietnam) Moscow International Salon of Innovations and Investments (Moscow)
- St. Petersburg International Innovation Forum (St. Petersburg);
- assistance in organizing and holding exhibitions in the Republic of Belarus of foreign advanced technologies;
- training of scientists and professionals, undergraduate and graduate students in leading international scientific, educational and industrial centers.