Construction Project of Industrial Park in the Republic of Bashkortostan

Overview Presentation

GEOGROWTH group

CONFIDENTIAL

General information about the project

GENERAL DESCRIPTION OF THE PROJECT	Organization in the framework of the industrial park of high-tech energy-intensive production of innovative and import-substituting products. The construction of an energy generating station for the thermal disposal of MSW to provide heat and electricity for industrial park enterprises. Development of investments will be carried out in the period from 2018 to 2022
INDUSTRIAL FOCUS ON THE PARK ENTERPRISES	• Greenhouse complex • Metallurgical complex • Production of non-magnetic weighted boring pipes and kelly joints- NMWBP and KJ • Production of hard alloys and tools • Production of geophysical equipment
INITIATOR OF THE PROJECT	**GeoGrowthGroup, LTD** **Organizational and production enterprise operating in the field of innovative development, financial and investment activities. Created in 2018**
INVESTMENT PARAMETERS	Total investment: 67,879 million rubles. NPV: 3,822 million rubles. IRR: 12% Simple payback period: 9.6 years Discounted payback period: 13.9 years
TYPE OF INDUSTRIAL PARK	**A private industrial park of the Greenfield type involves the construction of industrial premises, infrastructure and equipment on a free site from greenfield.**
POTENTIAL INVESTORS	• Private equity funds • Investments of legal entities and individuals

Regulatory framework for the construction of industrial park

Energy Strategy of Russia for the period up to 2035

Federal Target Program "Environmental Protection" for 2014 - 2025 years

Fundamentals of state policy in the field of environmental development of the Russian Federation for the period up to 2030 (approved April 30, 2012 by the President of the Russian Federation)

Decree of the Government of the Russian Federation of January 14, 2017 No. 9 “On the establishment of a ban on the admission of goods originating from foreign countries”

Order of the Ministry of Industry and Trade of the Russian Federation of May 5, 2014 No. 839 “On approval of the development strategy for the ferrous metallurgy of Russia for 2014–2020 and for the long term until 2030 and the development strategy for the non-ferrous metallurgy of Russia for 2014–2020 and for the long term until 2030”

Order of the Ministry of Industry and Trade of the Russian Federation No. 650 dated March 31, 2015 "On approval of the plan of measures for import substitution in the machine tool industry of the Russian Federation"

Federal Law of December 3, 2014 No. 458-ФЗ “On Production and Consumption Wastes” (as amended on 03.04.2018)

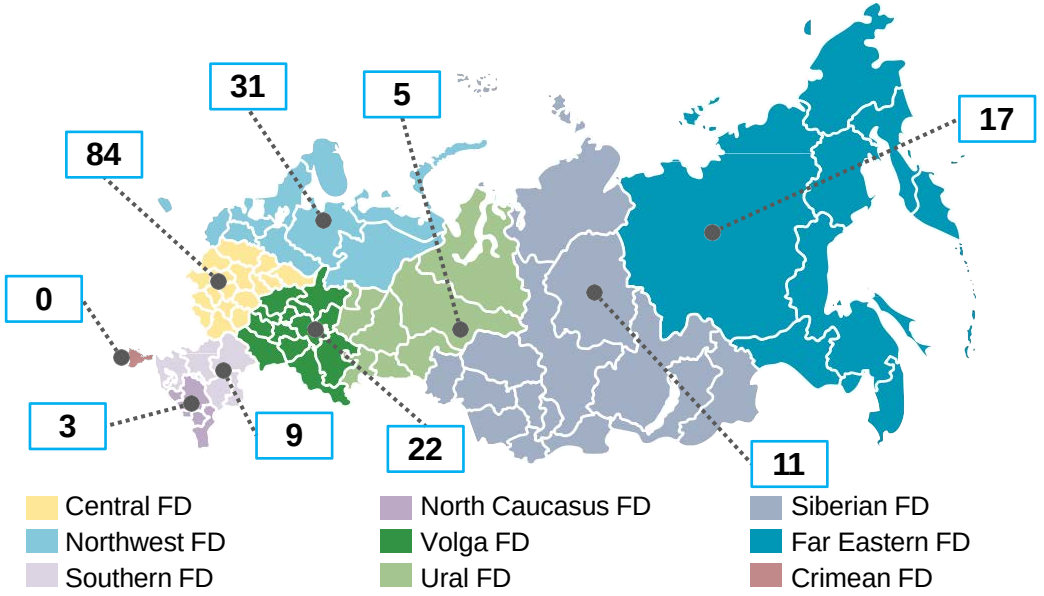
Construction of industrial parks in the Russian Federation

Industrial Park - a territory in a non-residential zone prepared by the local administration or a private entrepreneur, equipped with transport and engineering infrastructure to accommodate production and storage facilities and enterprises

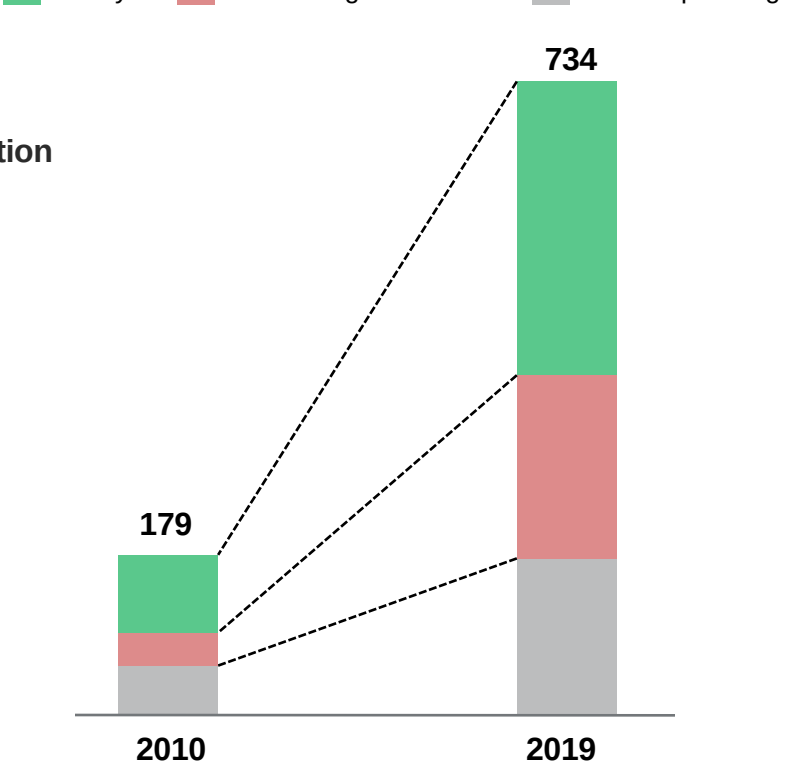
Key trends and indicators

- The number of existing industrial parks increased from 51 in 2010 to 182 at the beginning of 2018
- At the beginning of 2018, over 500 industrial park projects are at the planning and creation stages.

Number of operating industrial parks in federal districts of the Russian Federation



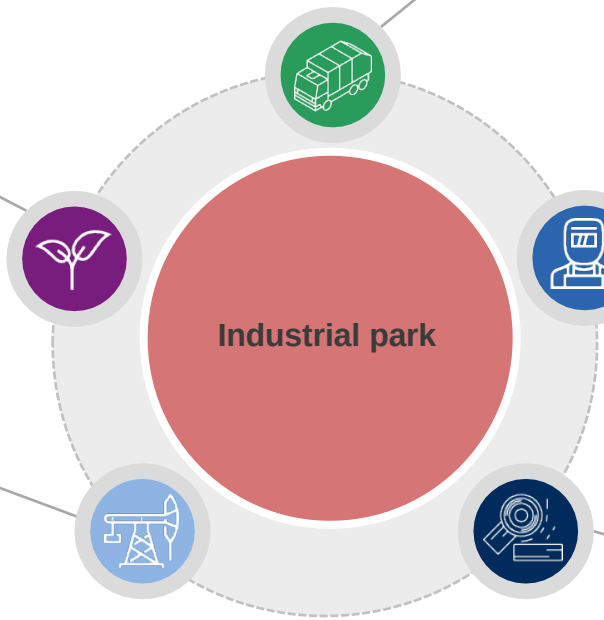
Distribution of industrial parks by degree of readiness



The concept of industrial park involves 5 areas

The concept is based on :

- ***an integrated approach to solving the problem of disposal of municipal solid waste generated in the city of Ufa, Ufa and Iglinsky districts of the Republic of Bashkortostan, with the subsequent generation of electrical and thermal energy***
- ***placement of energy-intensive industries in a vertically integrated production chain in the park will ensure guaranteed demand for energy generated by MW***



Recycling of solid municipal waste (MSW)

Construction of an energy generating station for thermal waste disposal with the subsequent generation of heat and electrical energy for the energy-intensive production of the park, which will solve the problem of lack of landfill facilities for waste disposal in the Republic of Bashkortostan

Greenhouse complex

Greenhouse complex for growing vegetables (tomatoes, cucumbers)

Metallurgical complex

Production of non-magnetic austenitic steel, superior to foreign analogues in economic and operational characteristics used in the manufacture of oil-producing and gas-producing equipment

Production of geophysical equipment

High-tech equipment for the exploration and development of oil and gas fields, including geo-navigation telemetry systems, sidetracking devices

Hard alloys production and tool

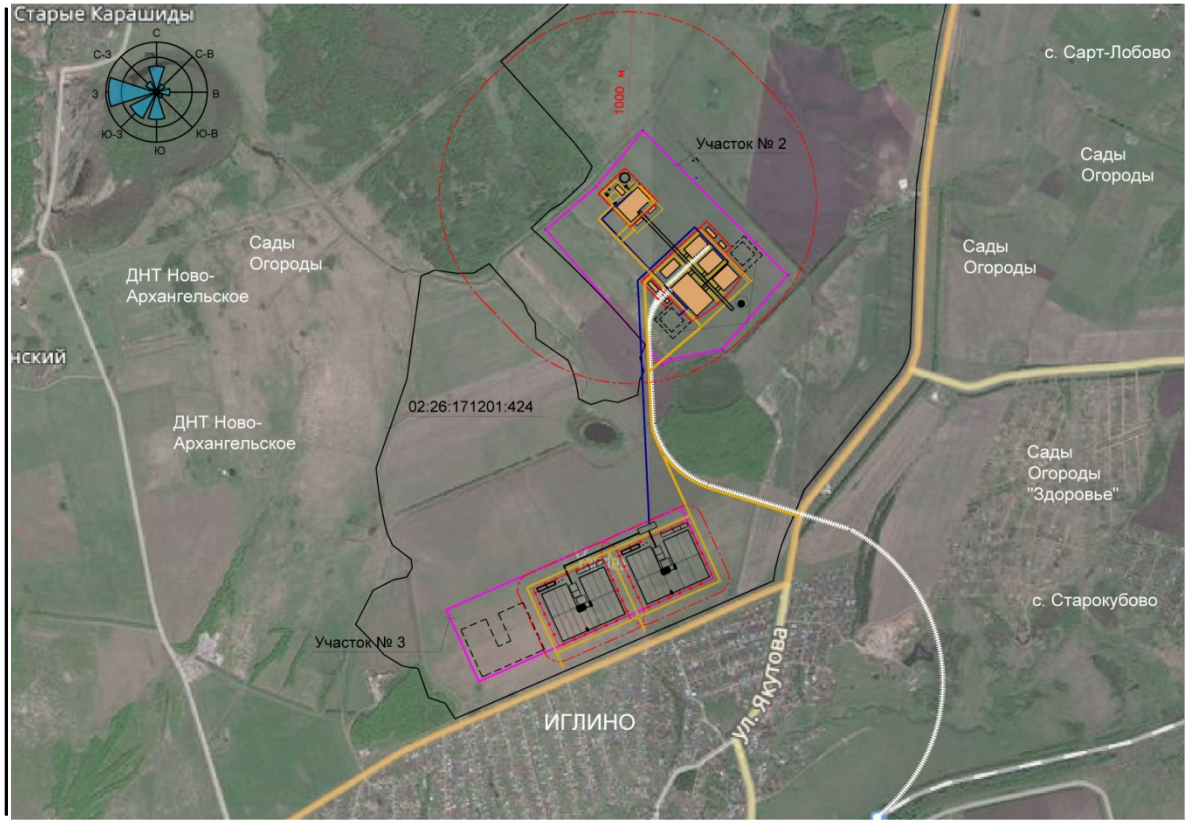
Full-carbide production of a full cycle based on nano-sized tungsten carbide powders, which allows to repeatedly increase the durability of the machining tool used in the aerospace industry

Construction of the park is envisaged in the South-East of Ufa city

Cadastral number 02: 26: 171201: 424, located north of the village Iglino. The total area of 200 hectares, including:

-160 hectares to accommodate the industrial park;

- 40 hectares to accommodate the greenhouse complex



Location Benefits

- Proximity to energy sources
- Proximity to the federal highway
- The site is rather flat
- Near the site passes the gas pipeline
- The possibility of expanding the area for construction

The problem of waste disposal in the Russian Federation

Each Russian accounts for 1 ton of waste per year

The amount of unutilized household and industrial waste increases annually by more than 150 million tons

On the territory of Russia accumulated more than 80 billion tons of unutilized waste

Toxic and hazardous chemicals that are harmful to the environment and poison aquifers are synthesized in buried debris

On the territory of Russia at the moment there are only :

- **243 waste recycling plants**
- **50 waste sorting complexes**
- **10 incinerators**

The existing factories and complexes aimed at recycling garbage are not enough to cope with the volume of unutilized waste growing every year

The relevance of the disposal of MSW in the Republic of Bashkortostan

12 mln.m³

Annual volume of garbage that can be buried

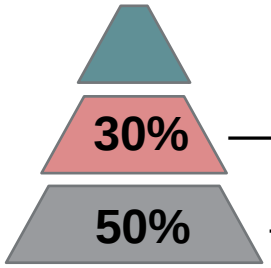
2 mln.m³

Annual volume of possible landfill

10 mln.m³

The annual volume of garbage at unauthorized landfills (the number of landfills - 2500)

On the territory of the Republic of Bashkortostan there are 43 lanfills to accommodate MSW, of which:



30% — almost completely filled

50% — already half filled

- 200 landfills need to be built
- The average cost of one landfill construction is 50 million rubles.
- Required investments –10 billion rubles.

Recycling of solid municipal waste(Waste-to-Energy)

One of the objects of the industrial park will be an energy generating station (heat power station) for the thermal disposal of waste with the subsequent generation of electrical and thermal energy for the supply of related industries in the park at preferential rates. The total list number of staff will be 200 people.

Key features

500 Th MT

PRODUCTION CAPACITY

The prepared station design provides for 5 stages of thermal processing of MSW; four stages are located in 2 successively installed boilers in each line.
The fifth stage is the ore-thermal electric furnace. The capacity is 1300 tons / day, the standard operation time of the boilers is 8000 hours / year with round-the-clock operation.

54 MW

INSTALLED POWER ON ELECTRIC ENERGY

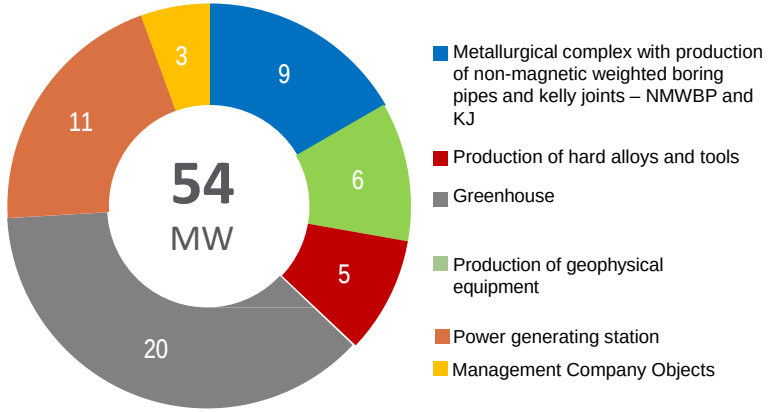
It is planned to install 5 steam turbine generators with a capacity of 13.5 MW each, one of them is back-up, and a part of the power can be used to produce thermal energy in cogeneration mode.
The share of power consumed by the station for own needs is 20%

11 HE

PRODUCTION AREA

To ensure transport accessibility, the production site will be located near the federal highway in compliance with all necessary environmental requirements and standards. Waste coming for recycling will be pre-sorted and prepared to improve process efficiency.

The structure of the electricity demand of the power generating station



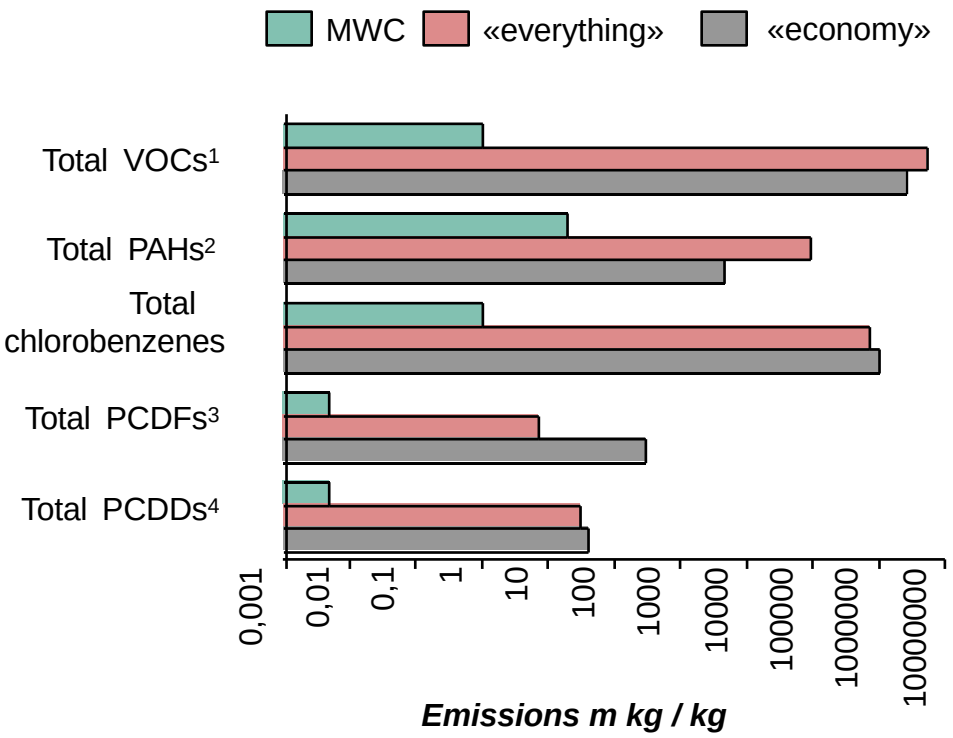
Current project status

- Reached agreement on the project with a technology partner
- A feasibility study has been prepared
- Preliminary design work has been completed, a list of necessary equipment has been determined.

Required investment - 10 100 million rubles.

TPP technology has several advantages

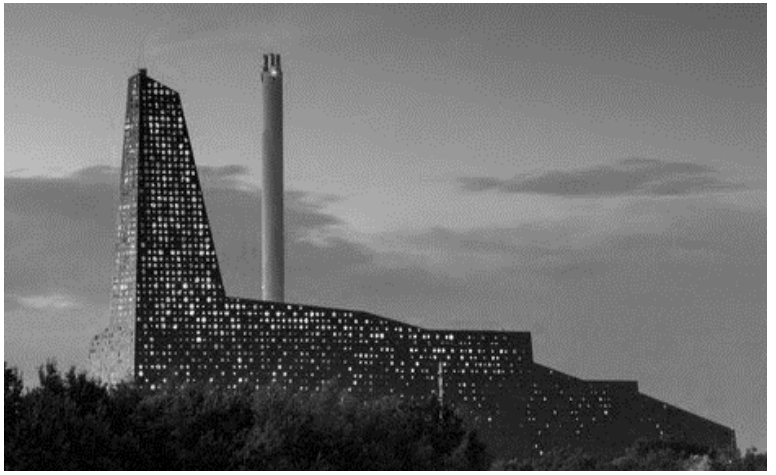
Comparison of open burning and burning in MWC



1 – volatile organic compound
2– polycyclic aromatic hydrocarbons
3 – polychloride dibenzofuran
4 – polychloride dibenzodioxin

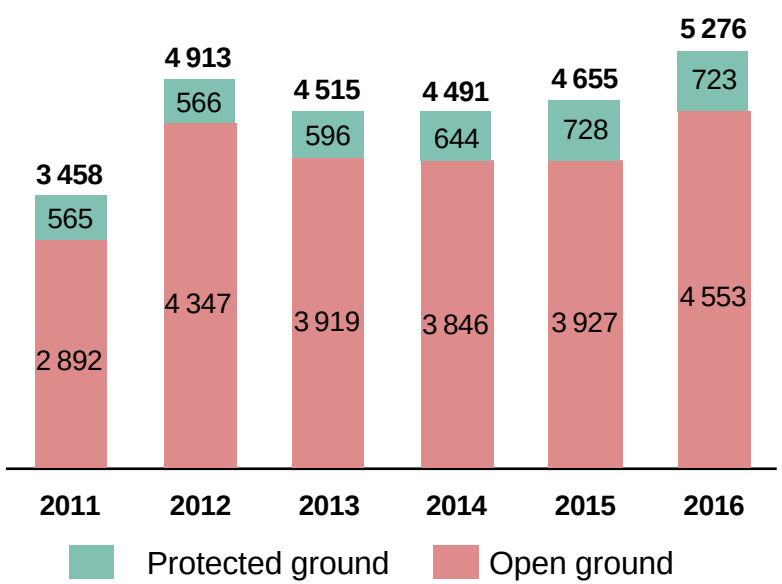
Advantages :

- Does not require mandatory prior preparation of MSW
- High reliability
- The use of 5-stage thermal processing ensures minimal air pollution.
- Low unit cost of MSW processing
- Provides full decontamination of MSW



The development of greenhouses in the Russian Federation

Vegetable harvesting in the industrial sector of vegetable growing in Russia, thousand tons



- The medical rate of consumption of greenhouse vegetables is 12–15 kg / person. per year
- Greenhouse enterprises produce about 0.57-0.73 million tons of products, which is almost 3 times less than the required standard (1.7-2.2 million tons)
- The average Russian consumption of greenhouse vegetables of domestic production increased from 3.6 kg / person. in 2010 up to 5 kg / person. in 2015
- In 2015, produced 728 thousand tons of vegetables that is, the production deficit exceeded 1 million tons

Key trends in the development of greenhouses in Russia

- ✓ Reduced imports of vegetable products
- ✓ Active government support for the cultivation of greenhouse vegetables
- ✓ Active development of greenhouse cultivation technologies
- ✓ Tighter logistics requirements in a producer-consumer relationship

Greenhouse

A modern greenhouse complex for growing vegetables will be created within the industrial park. In the future, it is planned to create a logistics center and a canning workshop in the park. The complex will be a key consumer of thermal energy generated by the power generating station.

Key features

40 Га

PRODUCTION AREA

The project of the greenhouse complex provides allocation of 30 hectares for the production of cucumbers, tomatoes on hydroponic technology, as well as 10 hectares for storage and production infrastructure

20 тыс.т

ANNUAL VOLUME OF GROWN PRODUCTS

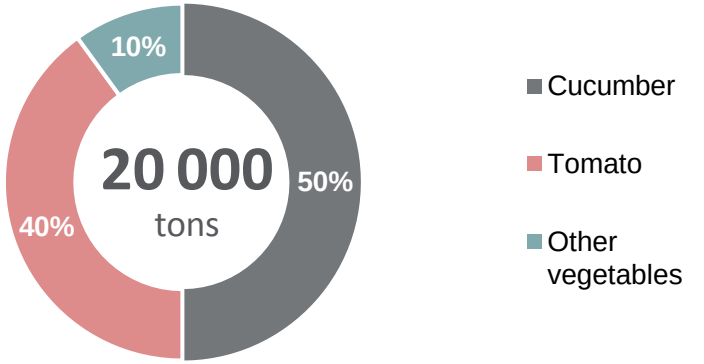
Production facilities of greenhouse complex will produce up to 20,000 tons of vegetable products per year, which will reduce the dependence of the local market on imports, as well as provide the population of the region with high-quality local products

194 человек

TOTAL LIST OF EMPLOYEES

The project will create jobs for 194 workers in the agricultural sector of the Republic of Bashkortostan

Production structure of the greenhouse complex



Current project status

- Prepared feasibility study of the project
- Preliminary design work has been completed, a list of necessary equipment has been determined.
- Negotiations are underway with potential investors and project lenders.

Required investment - 7,442 million rubles.

The relevance of the construction of metallurgical complex

Hard alloys production

Share of materials types for the machining tool, %

	Россия	Мир
High speed steel	18% ↓	11% ↓
Die steel	2%	2%
Hard alloys	**50%** ↑	**56%** ↑
Cutting Ceramic Materials	1%	9%
Polycrystalline Diamonds	6% ↑	6%
Cubic boron nitride	17% ↓	10% ↓

↓↑ - reduction / increase in the share

Main trends

Development of technologies aimed at improving the performance properties of hard alloys
Stable growth in demand for metal plates
Increasing the volume of drilling activities in the oil and gas sector
Decrease in the share import supplies of NMWWB

Manufacture of products from non-magnetic corrosion-resistant austenitic steels

Primary consumers

- Construction of oil and gas wells
- Energy and nuclear industry
- Shipbuilding and engineering
- Urban planning and housing complex
- Chemical industry

Advantages of nanostructured steel over foreign analogues

Cheaper in production because less alloying elements are used.

- It consumes 2 times less manganese, which is leached from imported steel at the opening of layers with a high sulfur content, which disables pipes before their guaranteed service life

Metallurgical complex and manufacture of products from hard alloys

Metallurgical complex

Within the framework of the project, it is planned to set up production of low-alloyed and non-magnetic austenitic steels using patented technologies with operational and economic characteristics that exceed imported analogues.

Key features

69 Ts t

INDUSTRIAL POWER OF THE COMPLEX

The volume of production of low-alloyed steel - 42 thousand tons, austenitic steel - 27 thousand tons.
Later used in the manufacture of oil and gas equipment - lead and drill pipes.

50 Hc

PRODUCTION AREA

The area of the site for the placement of workshops, warehouses and infrastructure of the metallurgical complex will be about 50 hectares

550 people

TOTAL LIST OF EMPLOYEES

The project will create jobs for workers in the metallurgical industry of the Republic of Bashkortostan

Required investment - 20 778 million rubles.

Carbide tool manufacturing

The organization of a vertically integrated production of hard alloys and tools from them will provide high-tech industries of the Russian industry with the necessary materials and tools previously not produced in Russia.

Key features

500 тонн

ANNUAL PLANNED PRODUCTION VOLUME

The production capacity of the enterprise will ensure a full cycle (including the production of tungsten oxide powder) for production up to 500 tons of hard alloys and products from them.

10 Га

PRODUCTION AREA

The plant for the production of hard alloys, steels and products from them is planned to be located on the area

10 hectares in close proximity to power generating station due to high energy intensity of the production process

Required investment - 12 669 million rubles.

The relevance of the organization of production of geophysical equipment

Prerequisites for the organization of production

- In Russia, there are 2.5-3.5 thousand sets of TNS in operation. Annual need - at least 300 sets
- Increasing the volume of drilling activities in the oil and gas sector
- Implementation of state programs aimed at import substitution

Development trends of the telemetric navigation systems market(TNS)

- Reducing the supply of imported navigation equipment against the background of an increased level of wear of the equipment used
- Annual growth in demand for telemetry devices by 18%

Manufacturing of geophysical equipment

The production site for the manufacture of geophysical equipment will allow for the vertical integration of the entire production cluster from the stage of manufacturing raw materials (low-alloyed and austenitic steel ingots) to the final product: drilling and leading pipes for oil and gas exploration. This product has a high potential for demand in the Russian market due to the lack of similar industries in Russia

Key features

1 He

PRODUCTION AREA

The industrial complex will include a workshop for servicing telemetric systems (1,440 m2), open warehouses (with a total area of 1,000 m2), a repair shop (1,440 m2) and an administrative building (1,440 m2)

2,0 Bill rubles

ANNUAL SALES AMOUNT BY 2023 year

The project is planned to release more than 100 units by 2023, as well as to enter the oilfield services market by leasing geo-navigation telemetry systems.

120 people

TOTAL LIST OF EMPLOYEES

The project will create 120 high-tech jobs for technical and engineering personnel in the Republic of Bashkortostan

Technological advantages

- Reduced diameters in comparison with imported analogues, which makes assembly easier
- Inclinometric modules of tele systems provide measurements with high accuracy
- Geophysical module provides identification of the section
- High reliability and speed of information transfer

Market advantages

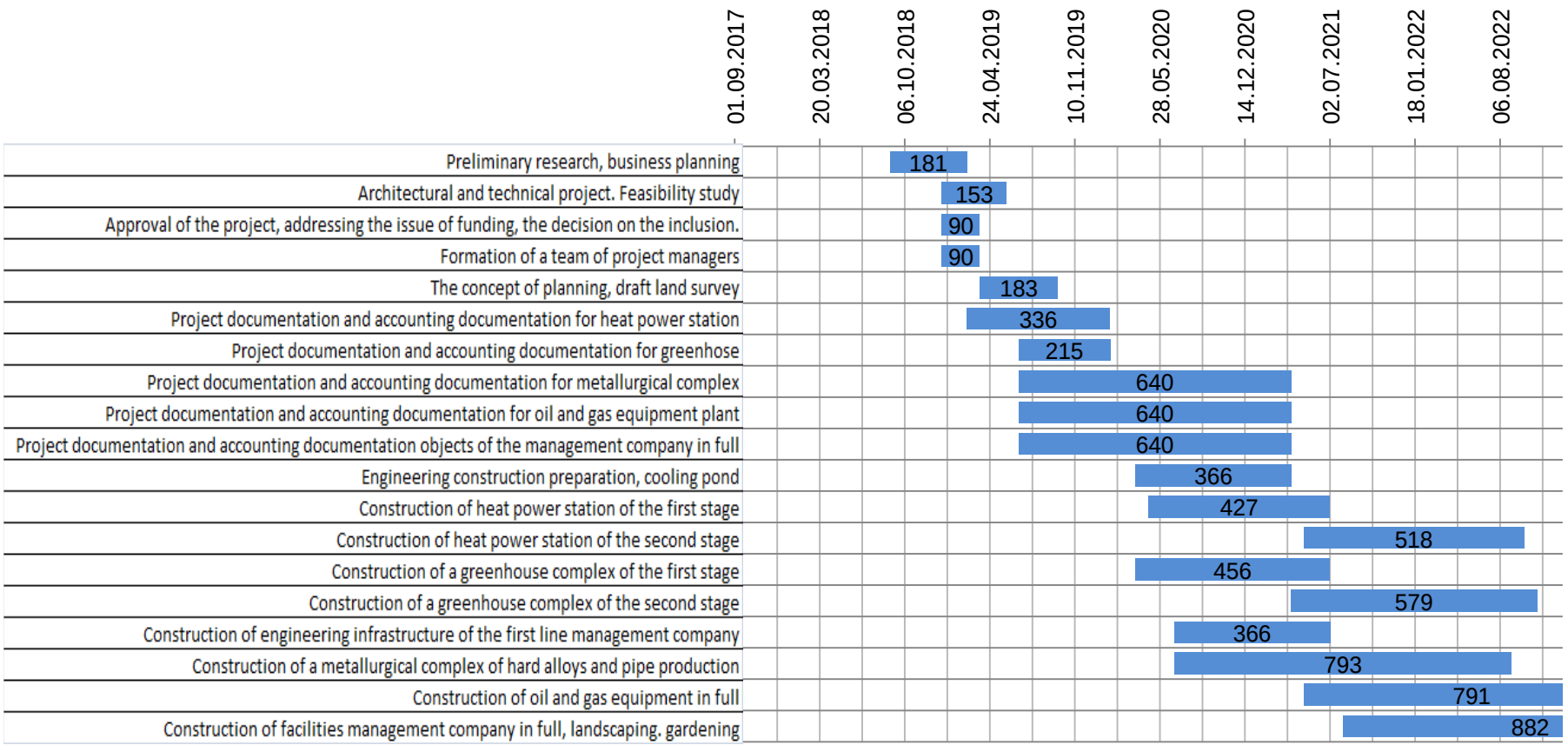
- The expected price of the tele system is lower than the price of foreign analogs - within 20 million rubles. at 10-15% profitability
- Production in the amount of 120 sets per year is expected, which will allow covering at least 21% of the market.
- Reducing the dependence of Russian oil and gas companies on imported products

The required investment amount is 5,339 million rubles.

Other investment costs

№	List of costs for the creation of Industrial Park	Cost of expenses with VAT, mln. Rubles	Note
1	Design and survey work on the construction of the object "Industrial Park"	**1 198**	In the amount of 8% of the cost of design, construction and equipment
2	The cost of creating project documentation, permits, expertise, environmental impact assessment and monitoring	**3 580**	In the amount of 8% of the cost of design, construction and equipment
3	The cost of land under the Industrial Park and the work on its formation	**1 062**	At the time of formation of the documentation on land plots, the cost will be specified
4	The cost of obtaining initial permits and transfer of land in the category of industrial purposes	**1 018**	Included are the costs of obtaining a building permit, certification, obtaining permits, registration of HIFs, commissioning of the facility, and customer functions.
5	Concept cost	**611**	Concept, 3D modeling, design of industrial area planning, land surveying.
6	The cost of the Management Company running for 5 years	**2 579**	including 850.0 million rubles. costs of building residential and social infrastructure
7	Marketing costs and costs of brand promotion (provision of funds to support the implementation of services) for 5 years	**1 493**	
	TOTAL including VAT:	***11 541***	

Project Schedule

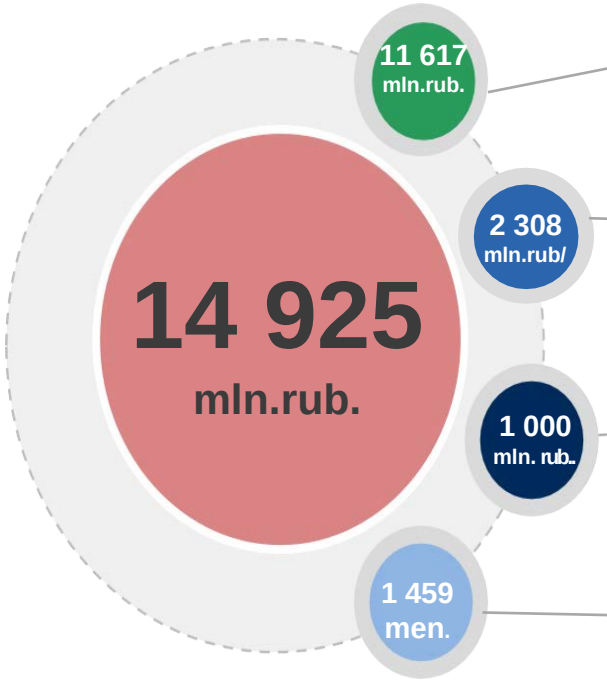


Integral project performance indicators

Investment Performance Indicators	Value, thousand rubles
Net profit	87 569 596
Net cash flow NPV, thousand rubles.	3 822 101
Internal rate of return IRR (mon.),%	12,0%
PI profitability index, units	1,1
Payback period PB, years	9,6
DPB payback period, years	13,9
Investments in the project, thousand rubles	67 862 689
Average profitability of project sales,%	27%
Discount rate, %	11,0%

Socio-economic effect of the project

The industrial park will become a point of social and economic development of the Republic of Bashkortostan and will provide the regional budget with a steady stream of tax deductions. High-tech industries of the industrial park contribute to attracting highly qualified specialists and the development of competencies, which contributes to the overall growth of the welfare of the population and increase productivity. The receipt of taxes in the consolidated budget of the Republic of Bashkortostan for the period of the project implementation will be about 15 billion rubles.



Regional part of income tax

Deductions from the project in terms of the regional component of the income tax will exceed 11 billion rubles

Benefits-related deduction

The total amount of contributions to the regional budget will be more than 2 billion rubles

Personal Income Tax (PIT)

The total tax on the income of individuals employed in the industrial park will exceed 1 billion rubles

Creation of new jobs

During the project implementation, 1459 new jobs will be created (including the Management Company - 80), which will help reduce tensions in the labor market and will allow attracting highly qualified personnel to the Republic

The results of the creation of an industrial park

- Development of the economic potential of the Republic of Bashkortostan and increasing the competitiveness of industrial production in the region
- Creation of import-substituting industries in the agro-industrial sector, metallurgy and processing industries
- Improving the environmental safety of the territory due to the full disposal of MSW
- Saturation of the domestic market of Russia with high-quality agricultural products
- Expanding the tax base and increasing revenues to the consolidated budget of the Republic of Bashkortostan
- Development of engineering and transport infrastructure in the Iglinsky district of the Republic of Bashkortostan