

Gas and Petrochemical Complex of the Republic of Tatarstan in figures



2022

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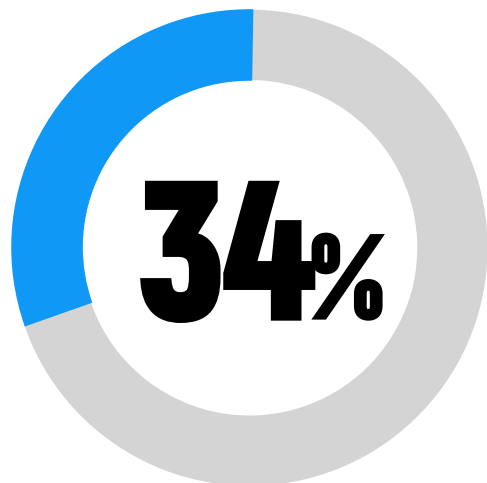
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Program development

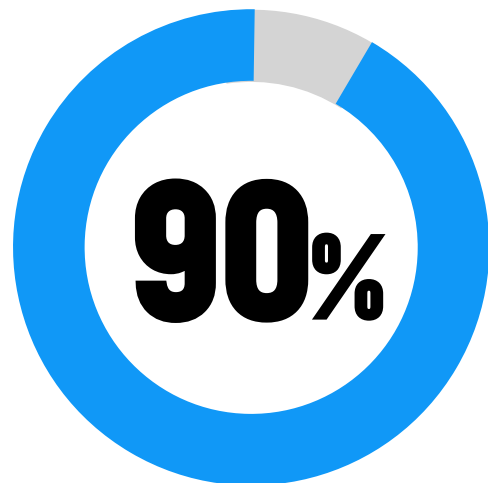


Characteristics of Gas and Petrochemical Complex of the Republic of Tatarstan

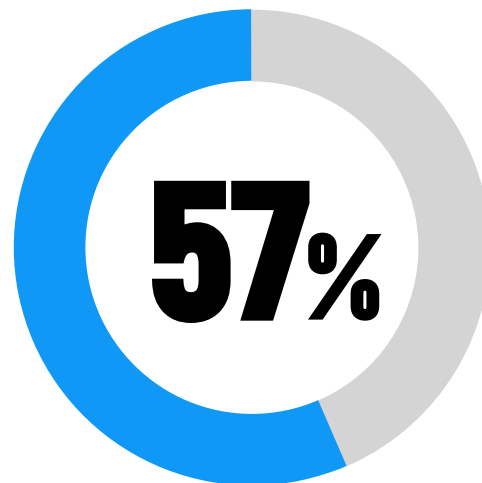
The petrochemical complex is one of the key sectors in the economy of the Republic of Tatarstan



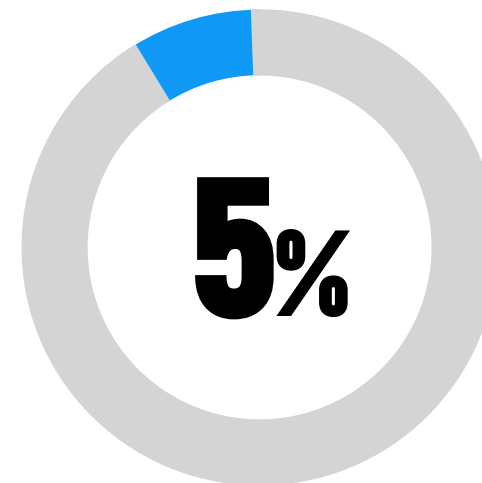
gross regional product



export



sales profit



employed

Tatneft

Small oil production companies

Crude Oil and natural gas production

Oil Processing

TANECO

TAIF-NK

Nizhnekamskneftekhim

Kazanorgsintez

Ammoni

Nizhnekamsktechuglerod

Nefis Cosmetics

Tatchempharmpreparaty

Chemical Plant named after

L. Karpov

Egida +

Tathimplast

August- Alabuga

Agruskhim-Alabuga

Transneft-Synthesis

Key Companies of Gas and Petrochemical Complex of Tatarstan

Manufacture of chemical products and medicines

Manufacture of rubber and plastic products

Nizhnekamskshina

Nizhnekamsk All-Steel Tyre Plant

Danaflex

I-Plast

KVART

NOVAROLL separate subdivision in Kamskiye Polyany

Tehstroy

SafPlast

Kamsky Plant of Polymeric Materials

Tatneft-Presskompozit

Polymatiz

Zaryad

Main results for 2022

Crude oil and natural gas production

Oil production volume	259,9 mln. bbl
The volume of shipped products	13,4 bln.USD
Sales profit*	5,6 bln.USD

Manufacture of chemical products (excluding medicines)

Growth rate, in % to 2021	99,4%
The volume of shipped products	8,2 bln.USD
Sales profit*	2,0 bln.USD

Oil processing

Crude oil distillation (incl. gas condensate)	163,5 mln. bbl
The volume of shipped products	16,0 bln.USD
Sales profit*	no data

Manufacture of rubber and plastic products

Growth rate, in % to 2021	96,5%
The volume of shipped products	3,5 bln.USD
Sales profit*	0,13 bln.USD

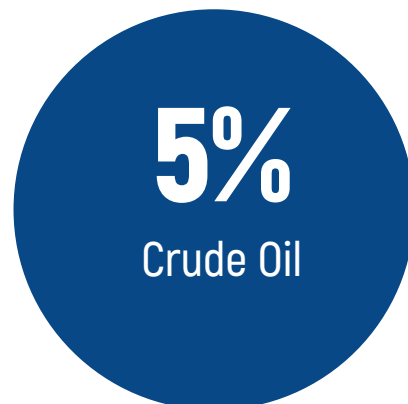
*By large and medium-sized enterprises

Production of main products of Gas and Petrochemical Complex in Tatarstan

	2022		% by 2021	% by 2012
Produced oil	259,9	mln. bbl	103,5%	109%
Co-produced gas (associated)	935,6	mln. m3	106,0%	106%
Crude oil for refining (including gas condensate)	163,5	mln. bbl	111,6%	143%
Diesel fuel	11 405,1	k t	126,6%	growth by 5,7 times
Motor gasoline	2 896,6	k t	140,2%	growth by 4,4 times
Plastics in primary forms	1 722,9	k t	100,6%	117%
<i>incl. ethylene polymers in primary forms</i>	932,7	k t	104,0%	107%
Mineral or chemical fertilizer (in terms of 100% of nutrients)	n/a		102,9%	growth by 5 times
Paints and varnishes	30,1	k t	86,1%	85%
Synthetic rubber	n/a		98,6%	116%
Carbon black	n/a		99,3%	117%
Industrial sulphur	286,2	k t	117,5%	growth by 6 times
Detergents	225,9	k t	74,4%	137%
Tires and new rubber inner tubes, total	n/a		100,8%	87%

The share of the Republic of Tatarstan in the sectors of the Gas and Petrochemical Complex of Russia

share in the shipping in 2022

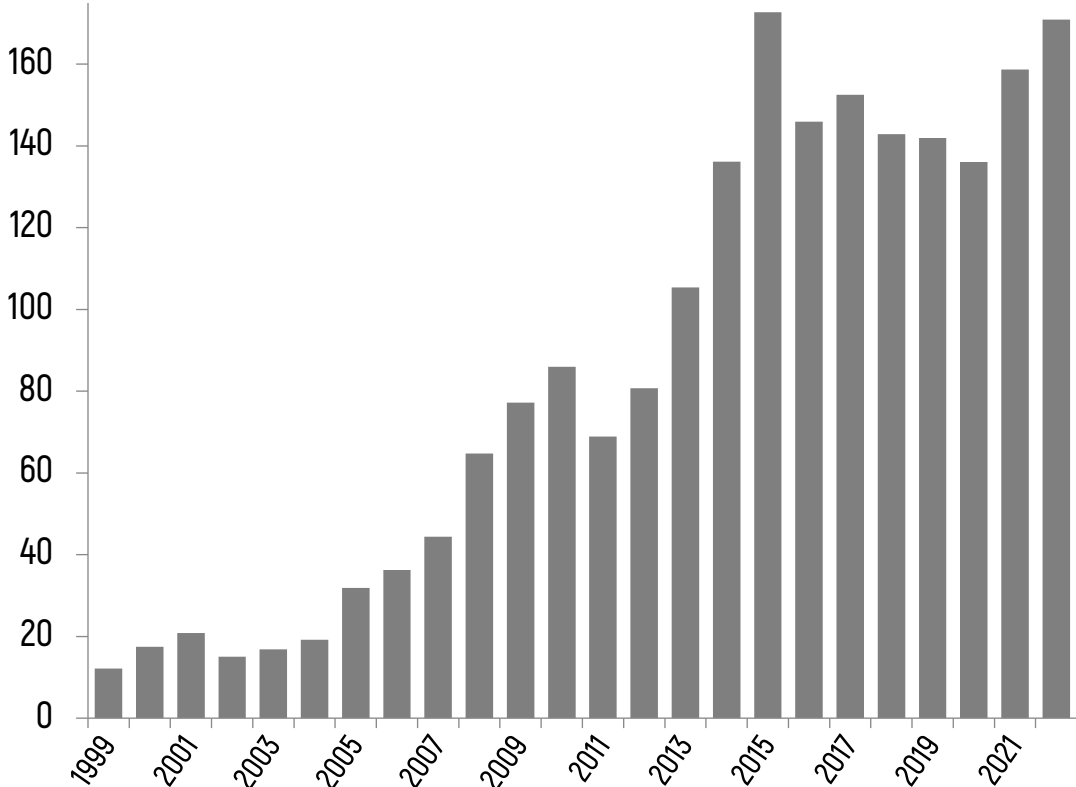


More than 2 trillion rubles of investments have been invested in the Gas and Petrochemical Complex of the Republic of Tatarstan for 24 years

Investments into equity

> 2 trln rub. 1999-2022 period

large and medium-sized enterprises, bln rub.



Production index

2022/1999

Crude oil and natural gas production

growth by **1,4** times

Coke and refined products

growth by **4,8** times

Chemicals and chemical products (incl. pharmaceuticals)

growth by **4,8** times

Manufacture of rubber products

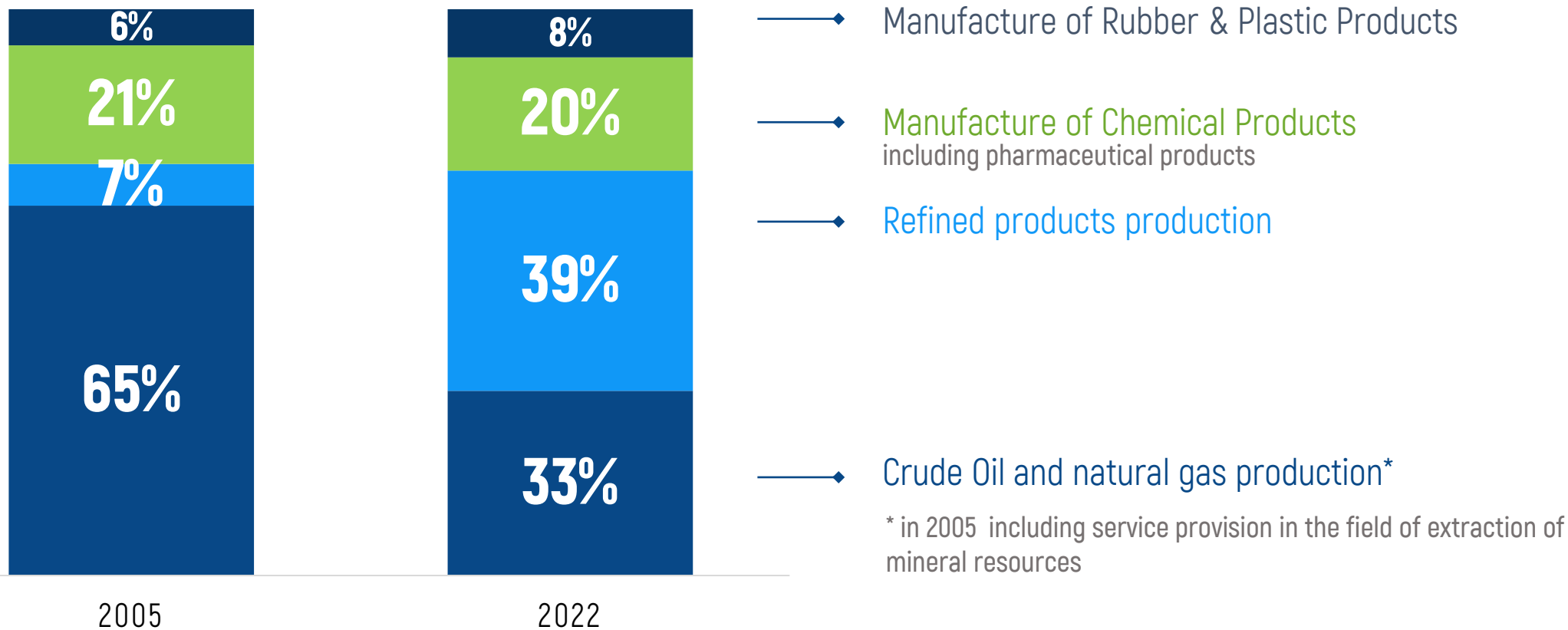
growth by **3,2** times

Manufacture of plastic products

growth by **11,4** times

The share of oil refining, the production of rubber and plastic products in the structure of the petrochemical complex of the Republic of Tatarstan is increasing

Structure of Gas and Petrochemical Complex of the Republic of Tatarstan



Development potential of small and medium-sized businesses in Gas and Petrochemical Complex of the Republic of Tatarstan



>2,3 mln tons of a wide range of plastics and rubbers
are produced in Tatarstan

Polyethylene

Isoprene rubbers

Polypropylene

Butyl-rubber

Polystyrene

Butadiene rubber

Polycarbonates

Styrene-butadiene-rubber

Resource potential for the implementation of new petrochemical projects in the Republic of Tatarstan

RAW MATERIALS

produced in Tatarstan in 2022

260 million barrels of oil

936 million cubic meters of associated gas

1,7 million tons of plastics

0,6 million tons of rubbers

STAFF TRAINING

2 state universities in the field of chemistry

1 regional petroleum institute

8 specialized colleges and technical schools

SUPPORT MEASURES

2 special economic zones

5 priority development areas

>100 investment sites

SCIENTIFIC BASE

>8 universities

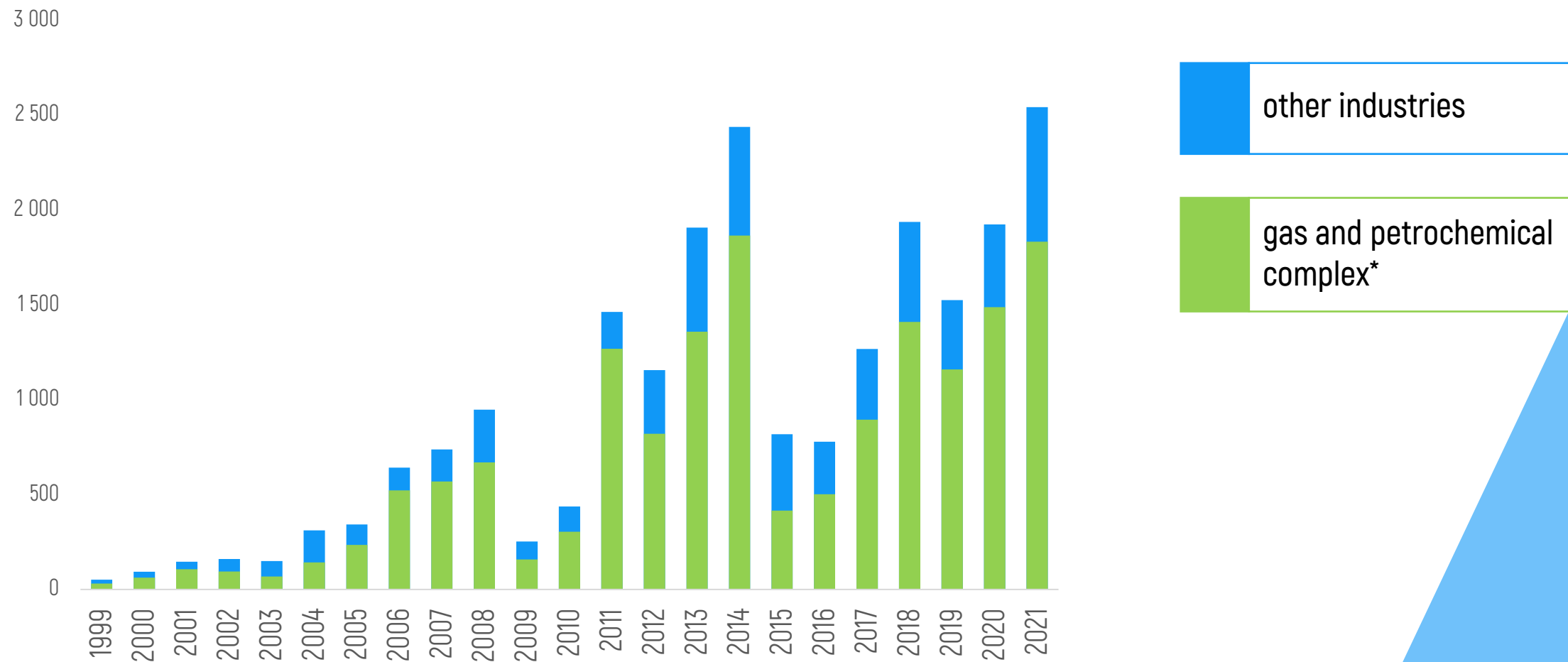
>7 research and design organizations



Innovative potential of the petrochemical complex of the Republic of Tatarstan

72% of industrial innovations in Tatarstan are created by enterprises of the gas and petrochemical complex

Expenses involved in innovation, mln USD



*including medicines, data for 1999 - 2016, taking into account the provision of services in the field of mining

The Republic of Tatarstan has a wide scientific and educational infrastructure in the field of petrochemistry

Academy of Science of the Republic of Tatarstan

Coordination of scientific activity and international cooperation in Russia and in the world

Volzhsky Research Institute of Hydrocarbon Raw Materials

Scientific work in the field of production & consumption of hydrocarbons

A.E. Arbuzov Institute of organic and physical chemistry

Physical-chemical and chemical-biological research

TATNIPINEFT Institute

Scientific support of oil production sector of the Republic of Tatarstan

Soyuzkhimpromproject Design Institute

Project development of chemical production

Kazan Federal University

Scientific and educational activity in the field of oil production, chemistry and ecology

Kazan National Research Technological University

Scientific and educational activity in gas and petrochemical industry

Kazan National Research Technical University

Development of composite materials and structures of petrochemical feedstock

Kazan State Power Engineering University

Optimization of chemical and technological processes, novel material characterization

Kazan State University of Architecture and Engineering

Development of application technologies of chemical materials in construction industry

TATNEFTEKHIMINVEST-HOLDING

coordinates the development of the petrochemical complex of the Republic of Tatarstan

Support for companies

assistance in the implementation of investment
and innovation projects

Planning

development of strategic documents and
strategic decisions

Provision of raw materials

assistance in solving issues of raw materials supply

Attracting projects

search, evaluation and attraction of technologies
and companies for the implementation of projects
in the Republic of Tatarstan

Cooperation

development of cluster connections

Communications

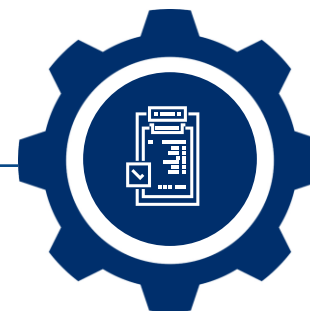
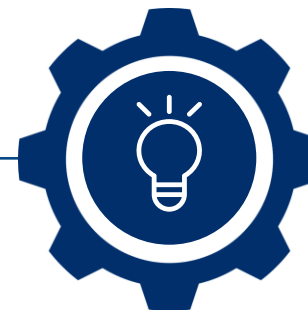
organization of conferences and round tables

Scientific and Technical Council of AO Tatneftekhiminvest-Holding promoting developments

informing the enterprises about new solutions in the field of oil production, refining, petrochemistry

obtaining an expert opinion from representatives of the state, science, and business






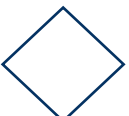
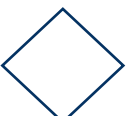
presentation of the most promising projects to the Board of Directors of AO Tatneftekhiminvest-Holding



Program development of Gas and Petrochemical Complex of the Republic of Tatarstan



Integrated development of Gas and Petrochemical complex industries is provided within the framework of the program-targeted approach

1999-2003		1-st Program	Ensuring economic security and economic growth of the Republic by bringing a key sector of the economy to a competitive level
2004-2008		2-nd Program	Increasing the competitiveness of the Petrochemical Complex and ensuring, on this basis, the economic growth of the Republic
2010-2014		3-rd Program	The most efficient use of competitive advantages, a stable increase of value-added production on this basis , strengthening positions in the Russian and world markets
2015-2019		4-th Program	Growth of competitiveness of Gas and Petrochemical Complex, realization and expansion of competitive advantages
2020-2024		5-th Program	Formation of raw material base and scientific base for the development of production of functional materials and other types of products of medium and low-tonnage chemistry
2025-2029		6-th Program	Creation of the industry of functional materials, medium- and small-tonnage chemistry in Tatarstan
2030-2034		7-th Program	Ensuring the leadership of Tatarstan among the EAEU countries in terms of production volume and quality of functional materials, products of medium and low-tonnage chemistry

GOAL FOR 2034 IS THE LEADERSHIP

on the territory of the Eurasian Economic Union in the field of functional materials, medium-and low-tonnage chemistry

GOALS FOR 2020-2024

1 Raw material base

Expansion of the raw material base for the production of medium-and low-tonnage chemicals

2 Infrastructure

Improving the infrastructure for facilitating the implementation of petrochemical projects

3 Scientific base

Development of the scientific base for functional materials, medium-and low-tonnage chemistry

4 Image of the territory

Positioning of the Republic of Tatarstan as an effective platform for the development of the chemical industry

5 Business support

Development of small and medium-sized business in the Gas and Petrochemical Complex

6 Innovations

Assistance in the implementation of new products and solutions for the Gas and Petrochemical Complex



Key initiatives of the Development Program of GPCC of the RT for 2020-2024



Determination and consolidation of the priority areas for the development of chemistry and petrochemistry in the Republic of Tatarstan on a regional level



Implementation of investment projects of enterprises of Gas and Petrochemical Complex of the Republic of Tatarstan



Creation of pilot production (small-tonnage) units for modeling and improving the product production processes of Gas and Petrochemical Complex



Creation of pilot sites for approbation (testing) of innovative developments in the areas of the petrochemical complex



Conducting strategic market research and long-term forecasting of gas and petrochemical industry sectors



Creation in the Republic of Tatarstan of advanced world-class centers in the field of science and education in the areas of the Gas and Petrochemical complex



Popularization of the Republic of Tatarstan as a place of endeavors for career growth and investment in the field of chemistry and petrochemistry



Conclusion of cooperation agreements with state corporations and the largest companies in Russia in the field of development, creation of production and new materials application

Priority areas for the development of chemical technologies and products in the Republic of Tatarstan

◆ Olefins
and their derivatives

◆ Methylchlorosilanes
and their processing

◆ new types of rubbers and rubber products:
ethylene propylene diene monomer (EPDM)
styrene-ethylene-butylene-styrene rubber (SEBS)
*thermoplastic elastomers based on
reactor olefins (r-TPO)*
*hydrogenated acrylonitrile-butadiene
rubber (HABR)*
silicone rubber (VMQ)
fluorosilicone rubber (FMVQ)
epichlorohydrin rubber (ECO)
chloroprene rubber (CR)

◆ Products of fine chemical industry
including:
*products for the production and processing
of rubbers and plastics*
super engineering plastics
*chemical products production
by the process of extraction
and use of supercritical fluids;*
*ultra-high molecular weight polyethylene
and its composites*

◆ maleic anhydride
processing products

◆ Epoxy and other synthetic resins

◆ Carbon fiber
and carbon fiber-based composites

◆ Processing of natural gas
into chemical products,
including olefins,
aromatic products,
feed protein (haprin)

◆ Linear alkylbenzenes

◆ Biodegradable polymers
and composites

◆ Polyurethanes and raw materials
for their production:
ethylene and propylene oxide
isocyanates

◆ Deep grain processing

Projects that were implemented during the 5th GPCC Programme of 2020-2024

▶ 2020

TANECO: heavy coker gasoil hydrotreating, middle distillate hydrotreating, extractive distillation with sulfolane

Kazanorgsintez: polycarbonate (extension, stage 1)

Nefis Cosmetics: liquid detergents, synthetic detergents, soap (extension)

TatkhimPlast: compounds (extension)

Danaflex: Recyclable Barrier Materials oriented polyolefin films

KNT-Plat: PVC plastic compounds and film

Agruskhim-Alabuga: plant protection agents

Tatneft Alabuga-Glass Fiber: fiberglass, glass mesh (extension)

▶ 2021

TANECO: catalytic cracking, hydrogen (3rd installation), diesel fuel isodewaxing, delayed coking-2, gas fractionation, chemical water treatment; lubricants

TAIF-NK: deep processing complex

Nizhnekamskneftekhim: styrene butadiene rubber

Nizhnekamskshina: tires «Viatti» (extension)

Alabuga-Fiber: PAN precursor

Nefis Cosmetics: laundry gels (extension), laundry capsules

Tathimplast: compounds (extension)

Danaflex: oriented polyolefin films

INCO-TEK Agro Alabuga: complex granular NPK fertilizers

Polyplast Kazan: concrete additives

Factory of soft containers: big bags

▶ 2022

TANECO: complex for obtaining aromatics (in the mode of complex testing), pilot installation of hydroconversion

Nizhnekamskneftekhim: polyalkylene glycol (experimental batch), steam generating plant - thermoelectric station (start of pilot operation)

Kazanorgsintez: polycarbonate (extension, stage 2)

Nefis Cosmetics: laundry gels, capsules for washing and dishwashers, soap (extension)

Tatplastik: household plastic products

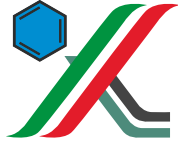
STC Ahmadulliny: polyphenylene sulfide (pilot production)

Chemical Plant named after L. Karpov: waterless magnesium sulfate

Natural Health: wellness products

Polymatiz: composite nonwovens (extension)

We invite you to cooperate!



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