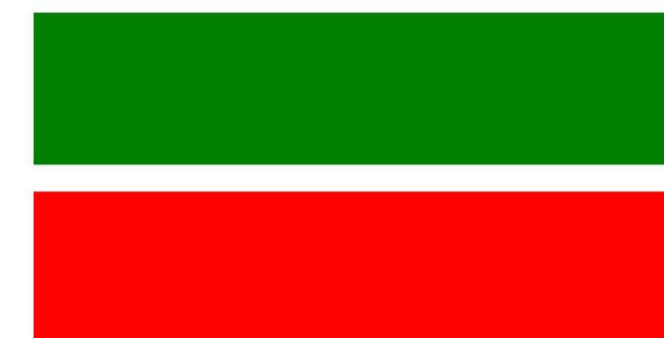




KAZAN NATIONAL RESEARCH
TECHNOLOGICAL UNIVERSITY

www.knitu.ru

REPUBLIC OF TATARSTAN



4
mln. People

44
universities

No.3
by the R&D level in
Russia

7
Federal
innovative sites

5
Technoparks

No.2
in the National Investment
Climate Ranking



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KAZAN

One of the largest economic, scientific, educational, cultural and sports centers of Russia

Founded

1.000

years ago

Population

1.300

million people



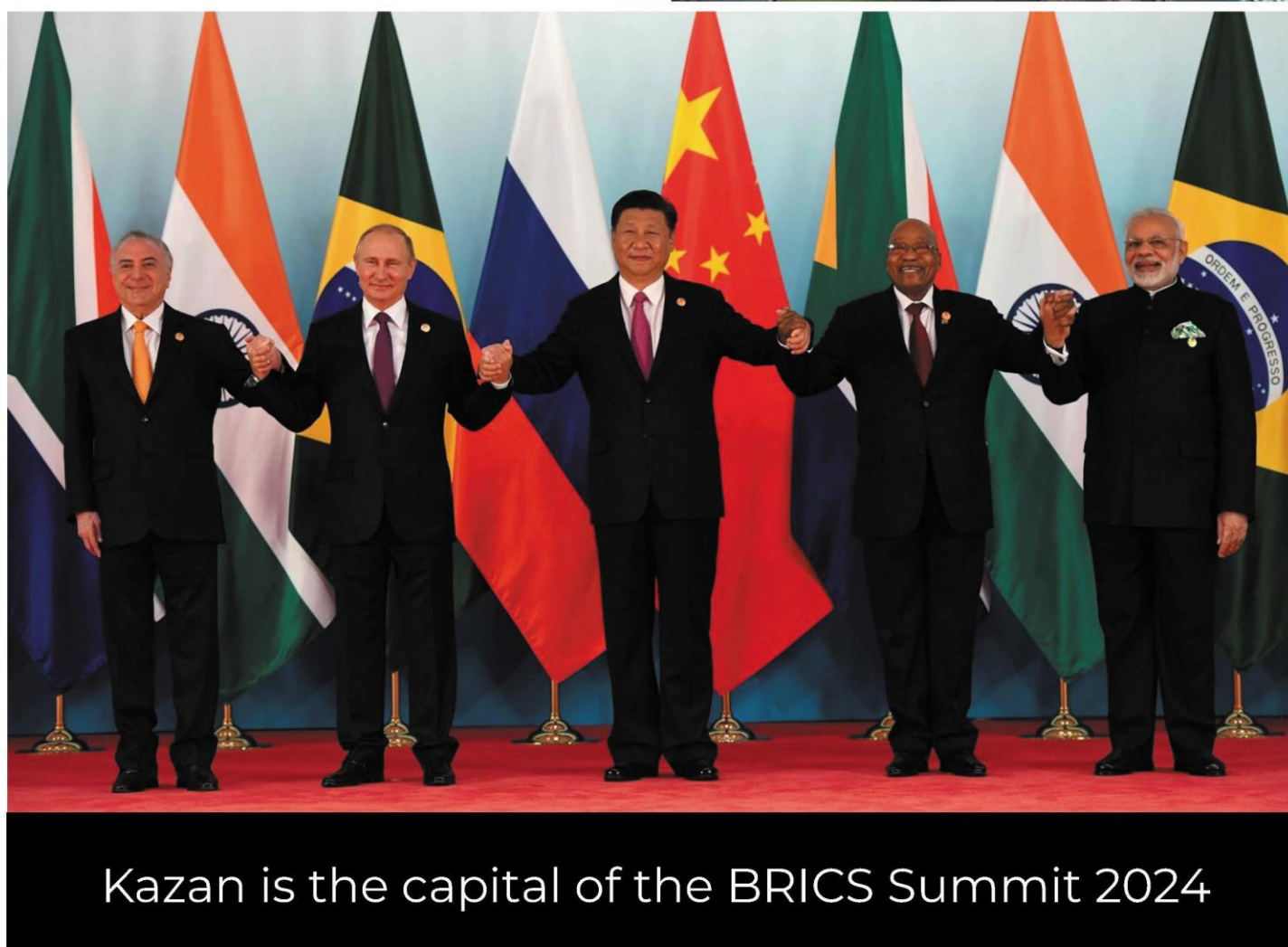
in the World Heritage list

30

investment platforms



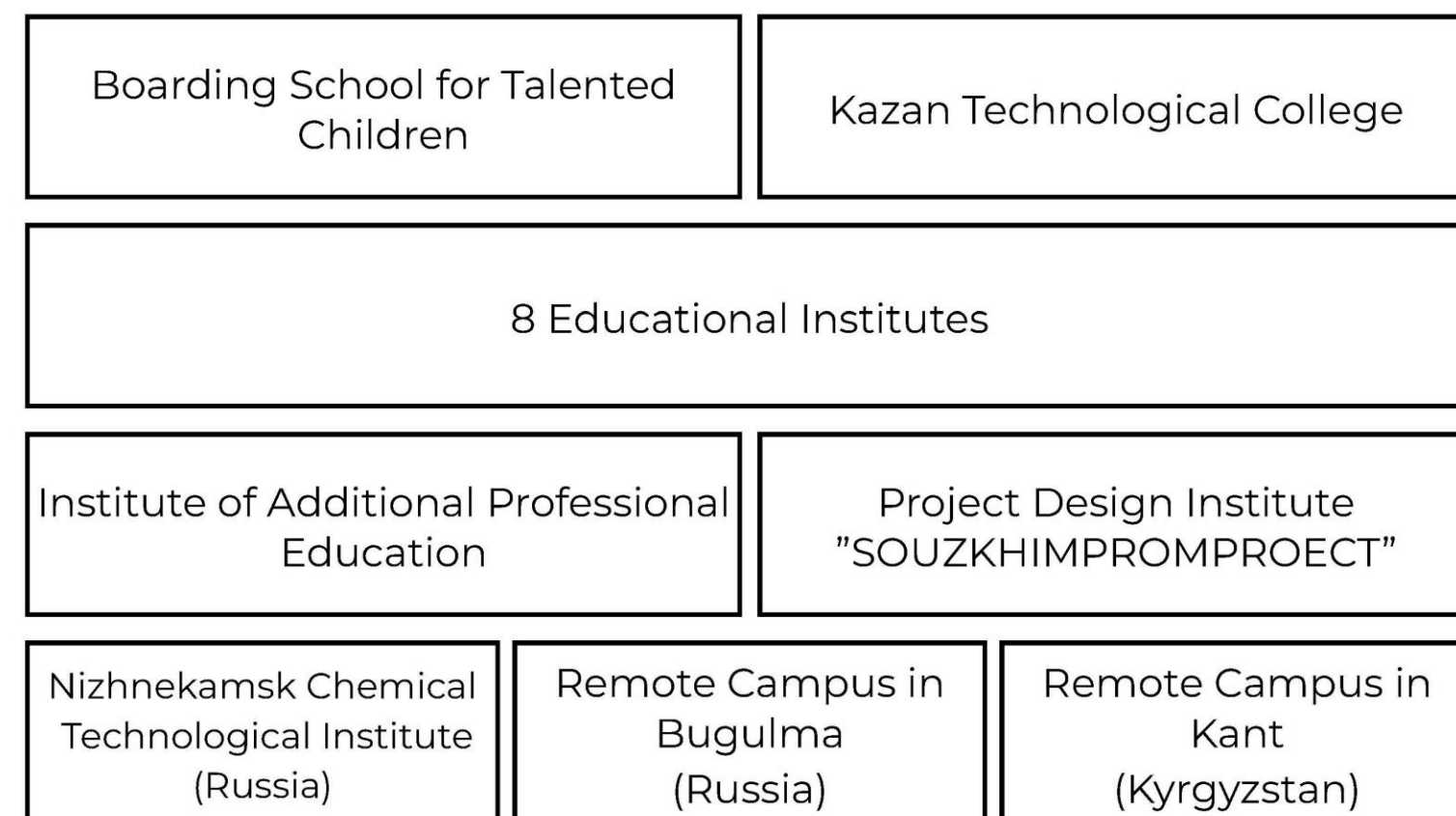
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Kazan is the capital of the BRICS Summit 2024



KAZAN NATIONAL RESEARCH TECHNOLOGICAL UNIVERSITY



KNRTU IS THE PARTICIPANT OF FEDERAL PROJECTS

priority2030[^]
leaders are made, not born

Goals of the Program:

- providing safety of the Russian economy
- developing chemical technologies and production facilities for the new economy
- Technological Elite



Передовые
инженерные
школы

Areas:

- 1) Low-tonnage chemistry and petrochemistry
- 2) Gas refinery and gas transport
- 3) Mineral fertilizers

Founded in

1890

>200000

students

223

Doctors of
Sciences,
Professors

775

PhDs, Associate
Professors

335

educational
programs



KNRTU IN RANKINGS



No.32



No.1200-1400



No.1

in graduate employability (85%)
among Tatarstan universities



No.1500+

1000-1500+

Quality
Education

401-600

Build resilient infrastructure, promote
sustainable industrialization and
foster innovation



No.1501+

1001+

Engineering and
Technology

401-500

Emerging
economies



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THE THREE UNIVERSITY MISSIONS RANKING



MosIUR
THE THREE UNIVERSITY MISSIONS

1301-1400

2

Light Industry Technology

3

Food Engineering

5

Chemical Engineering

8

Biotechnology and Bioengineering

11

Oil and Gas Engineering



KAZAN NATIONAL RESEARCH
TECHNOLOGICAL UNIVERSITY

KNRTU INDUSTRIAL PARTNERS



KAZAN NATIONAL RESEARCH
TECHNOLOGICAL UNIVERSITY



KNRTU INTERNATIONAL PARTNERS

84

international
agreements

67

research, educational institutions
and international associations

18

countries

Invited professors from: Moldova, India, Turkey, Armenia,
Israel, Kyrgyzstan, Belarus, Kazakhstan, and other
countries



KAZAN NATIONAL RESEARCH
TECHNOLOGICAL UNIVERSITY

DOUBLE DEGREE PROGRAM

with Beijing University of Chemical Technology

Field of Study: Chemical Engineering

- Polymers Processing and Engineering
- Digital Engineering in Polymer Production and Processing
- Digital Methods in Polymer and Composite Materials Processing

Field of Study: Process Machines and Equipment

- Process Equipment of Oil and Gas Complex

2 years at KNRTU + 2 years at BUCT = 2 Diplomas

BUCT

- tuition waiver
- half accommodation fee

SIBUR

- English language course
- logistics
- scholarship
- industrial internship
- employment



KAZAN NATIONAL RESEARCH
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INSTITUTE OF POLYMERS

Educational Programs

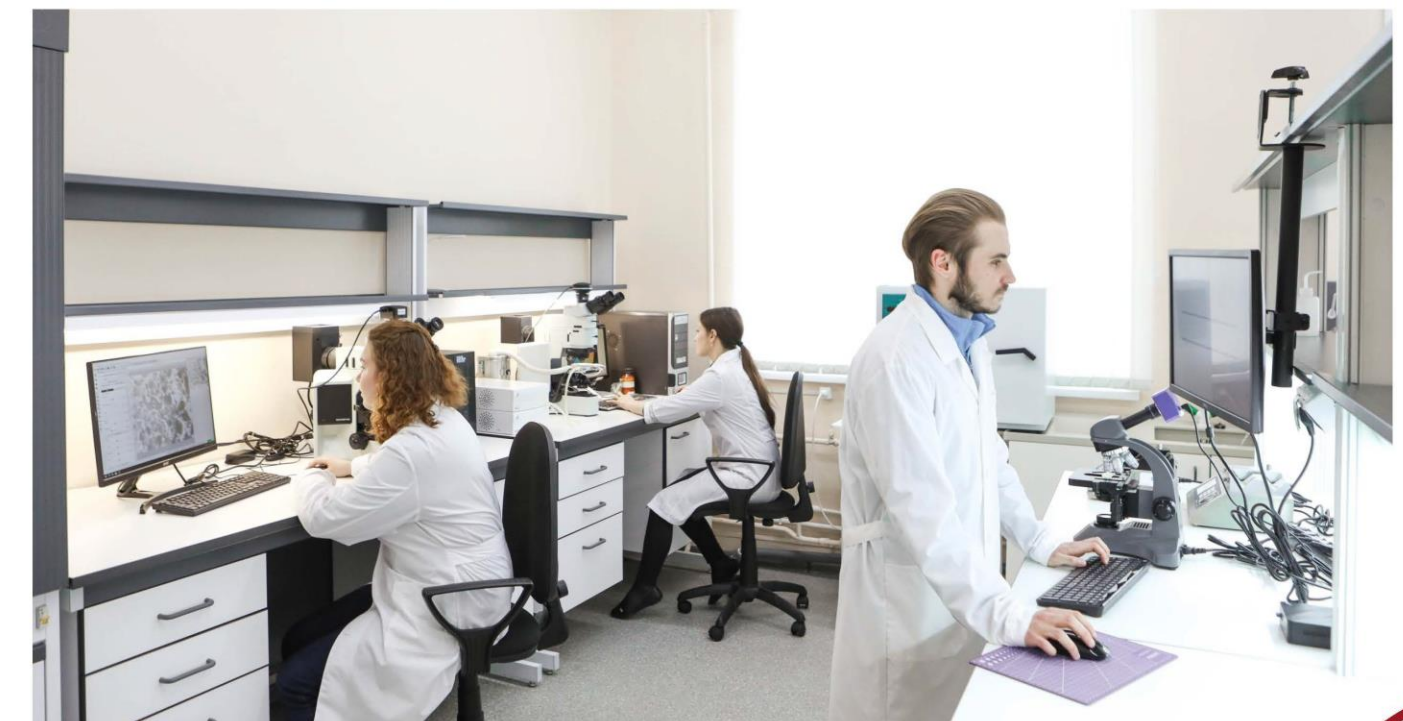
- Smart Materials
- Programming of Polymer Full Life Cycle in the Circular Economy Development
- Digital Engineering in Polymer Technology and Processing
- Innovations in Chemical Technology
- Innovative Medical Cosmetic Products and Functional Polymer Systems

Research Areas

- Production of liquid crystal metal-containing compounds
- Advanced synthesis processes of hyperbranched polymers with the specified properties
- Study of physicochemical conditions for obtaining new polymer composites with advanced physical, mechanical and performance properties



KraussMaffei research and educational center at KNRTU



Research laboratory "Molecular Engineering and Smart Materials"



KAZAN NATIONAL RESEARCH
TECHNOLOGICAL UNIVERSITY

INSTITUTE OF MECHANICAL ENGINEERING FOR CHEMICAL AND PETROCHEMICAL INDUSTRY

Educational Programs

- Technological Machinery and Equipment
- Design of Process Equipment and Complexes
- Technologies in Forestry and Wood Processing Industries
- Vacuum and Compressor Equipment

Research Areas

- Developing new, highly intensive mass and heat exchange equipment for chemical production
- Developing highly efficient energy and resource saving equipment and technologies for construction and wood processing industry
- Industrial safety in chemical and petrochemical plants



INSTITUTE OF FOOD ENGINEERING AND BIOTECHNOLOGY

Educational Programs

- Energy and Resource Saving Processes in Chemical Technology, Petrochemistry and Biotechnology
- Biotechnology
- Product Technology and Public Catering

Research Areas

- Biopolymers and prospective materials based on them. Polymer materials testing for bioavailability and biostability
- Comprehensive processing of raw plant materials and wastes for obtaining bioethanol, yeast biomass, bioproduct in agriculture, including probiotics, biopesticides, vitamins, food, functional and crude products
- Industrial Biotechnology of Contaminated Media Treatment and Waste Utilization.
- Industrial biotechnology for waste and water treatment. Biological monitoring of industrial enterprises and municipal facilities



KAZAN NATIONAL RESEARCH
TECHNOLOGICAL UNIVERSITY

INSTITUTE OF INNOVATION MANAGEMENT

Educational Programs

- Logistics Systems and Technologies
- Digital Transformation Management of High Technology Industries
- Business Statistics and Data Analysis

Research Areas

- Digital transformation in industrial enterprise management
- Innovative logistics technologies, energy and resource efficiency
- Social and economic, political and cultural dimensions of sustainable development and national security in Eurasia

Prospective Projects

- Launching research and engineering centers of oil and gas industry logistics at foreign universities;
- Creating ESG-transformation and BAT (Best Available Techniques) laboratory with Research Institute “Environmental Industrial Policy Centre” (Moscow)
- Studying international transport corridors, including Chinese routes.



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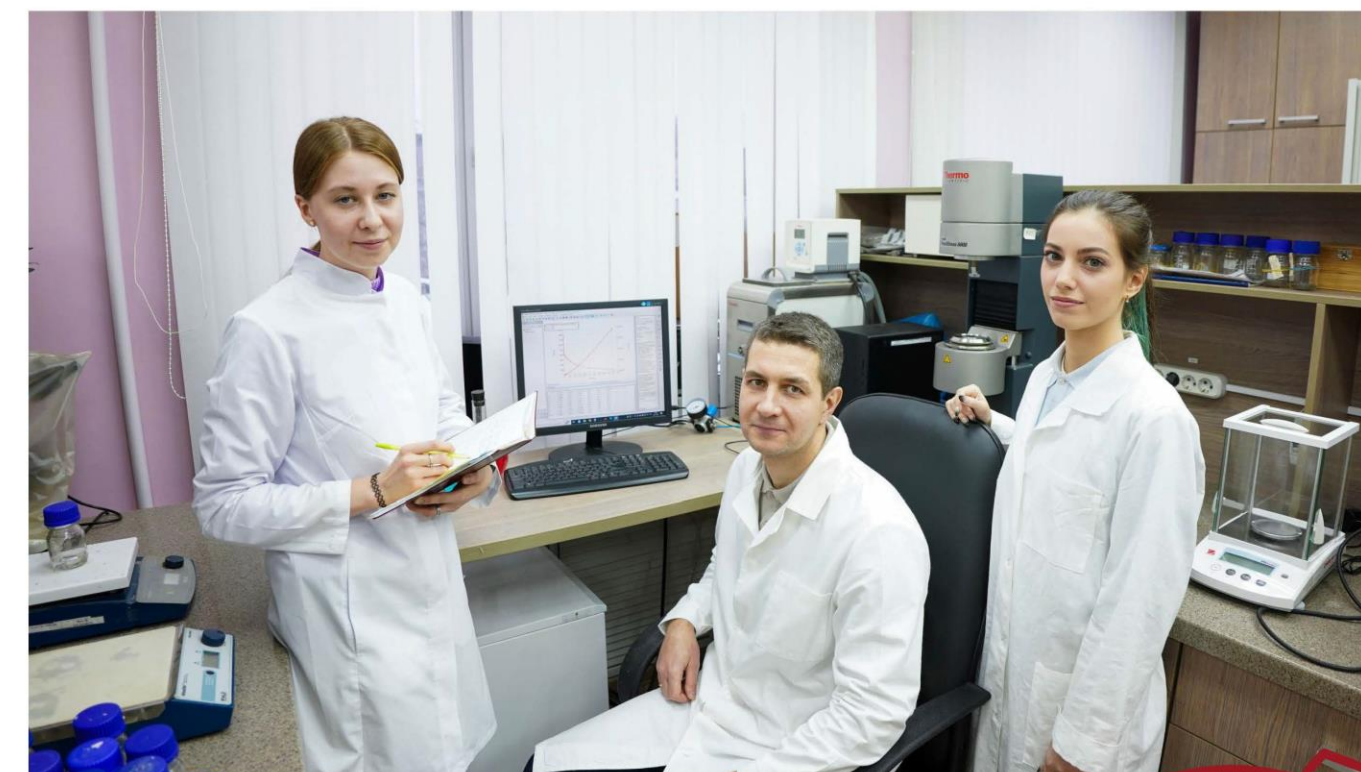
INSTITUTE OF PETROLEUM, CHEMISTRY AND NANOTECHNOLOGIES

Educational programs

- Digital Management of Technological Projects at Petrochemical Enterprises
- Smart-Oilfield Chemistry
- Electrochemical and Physicochemical Corrosion Protection of Constructions and Equipment at Petrochemical Enterprises
- Advanced Mineral Fertilizer Technology

Research Areas

- Low-carbon technologies and decarbonization
- Development of complex technology for propylene oxide, acetone, and phenol production
- Digital process simulation
- Supercritical fluid technologies for advanced catalytic processing of hydrocarbon feedstock



INSTITUTE OF AUTOMATED CONTROL SYSTEMS AND INFORMATION TECHNOLOGIES

Educational Programs

- Information Systems and Technologies
- Electric Power Engineering
- Processes and Production Automation
- Mathematical Software and Information System Administration
- Applied Mathematics and Informatics

Research Areas

- System analysis and management in chemical engineering
- Non-destructive testing of asynchronous engine fails
- System and process modeling: queuing system, data flow, pattern recognition, oil production processes



INSTITUTE OF LIGHT INDUSTRY, FASHION AND DESIGN

Educational Programs

- Light Industry Products Design
- Materials Science and Engineering
- Industrial Design of Robots and Robotic System

Research Areas

- Personal protective equipment development for chemical and petrochemical industry, services and agencies
- Digitalization of light industry product design
- Design of light industry materials with controlled microstructure

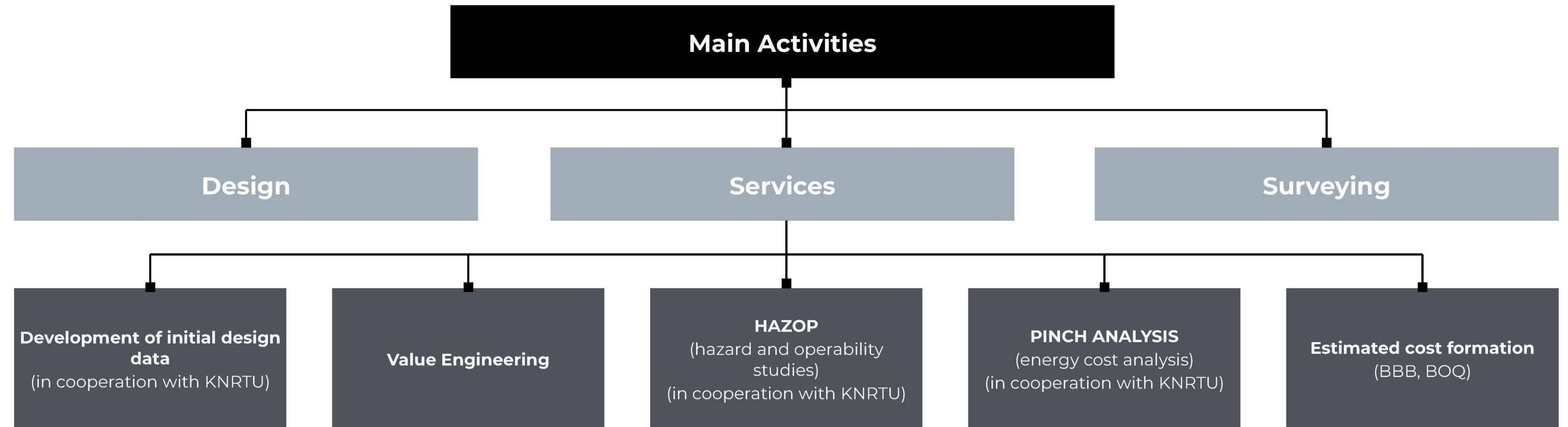


Personal Protective Equipment Engineering
Center



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PROJECT DESIGN INSTITUTE SOUZKHIMPROMPROECT



MAJOR PROJECTS (2021 - 2023)



Chromium catalyst production



- N-butyllithium production
- Synthetic Stereospecific Butadiene Rubber production



РУСХИМ
ЭКОСИНТЕЗ Gas Chemical Complex



- Diene-Styrene Synthetic Rubber production
- Halobutyl Rubber production
- Flame Retardant production



propane dehydrogenation scale-up



ЕВРОХИМ

Methanol production



КАЗАНЬОРГСИНТЕЗ

Reactor B upgrade



- Butyl Alcohol production
- Plasticizers and 2-Ethylhexanol production



Methanol production

Chinese Engineering Company:

Polyethylene production for Amur Gas Chemical Complex LLC (AGCC)



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