Al-Farabi Kazakh National University

(Almaty, Kazakhstan)

Tlekkabul Ramazanov

Vice-Rector for Science & Innovations

Cairo, Egypt, COMSATS, 14-15 May 2017

Present statistics of the Centre

Main Campus Area 75 hectare

Al-Farabi Kazakh National University

VISION: to enter the Top 200 leading research universities in the world

MISSION: Generating the human capacity - highly qualified specialists competitive in the international labor market

«To 2020 .... at least 2 higher educational institutions will be awarded in the ranking of the world's best universities»

From the Message of President of Kazakhstan N. Nazarbayev

ABOUT THE UNIVERSITY:

- Faculties: 15
- Chairs: 65
- Research institutes: 25
- Laboratories of the National Level: 2
- Science and Technology Park

ACADEMIC PROFILE:

- More than 20 000 students
- Bachelor specialities: 86
- Master specialities: 118
- PhD programs: 79





Al-Farabi Kazakh National University Structure

Al-Farabi Kazakh National University - the only university in the Republic of Kazakhstan, which has a unique scientific and innovative structure

15 Faculties

10 Scientific Institutes

«Gylym Ordasy»

5 Scientific Institutes and 30 Scientific Centers of socio-humanity area

8 Scientific Institutes and Laboratory of engineering profile of natural area

Research is carried out in accordance with the priorities of the Republic of Kazakhstan and world trends in science and technology

Faculties

- Mechanics and Mathematics
- Physics and Technology
- Chemistry and Chemical Technology
- Biology and Biotechnology
- Geography and Nature Management
- History, Archeology and Ethnology
- Philology, Literary Studies and World Languages
- Journalism
- Philosophy and Political Science
- High School of Economics and Business
- Law
- International Relations
- Oriental Studies
- Pre-College Education
- High School of Public Health (established in 2016)

Research Institutes and Centers
(Natural and Technical Sciences)

Institute of Mathematics and Mechanics

Institute of Experimental and Theoretical Physics

Institute of New Chemical Technologies and Materials

Center of Physico-Chemical Methods of Research and Analysis

Institute of Biology and Biotechnology Problems

Institute of Ecological Problems

National Nanotechnology Open Laboratory

Scientific and Technology Park

Laboratory of Engineering Profile

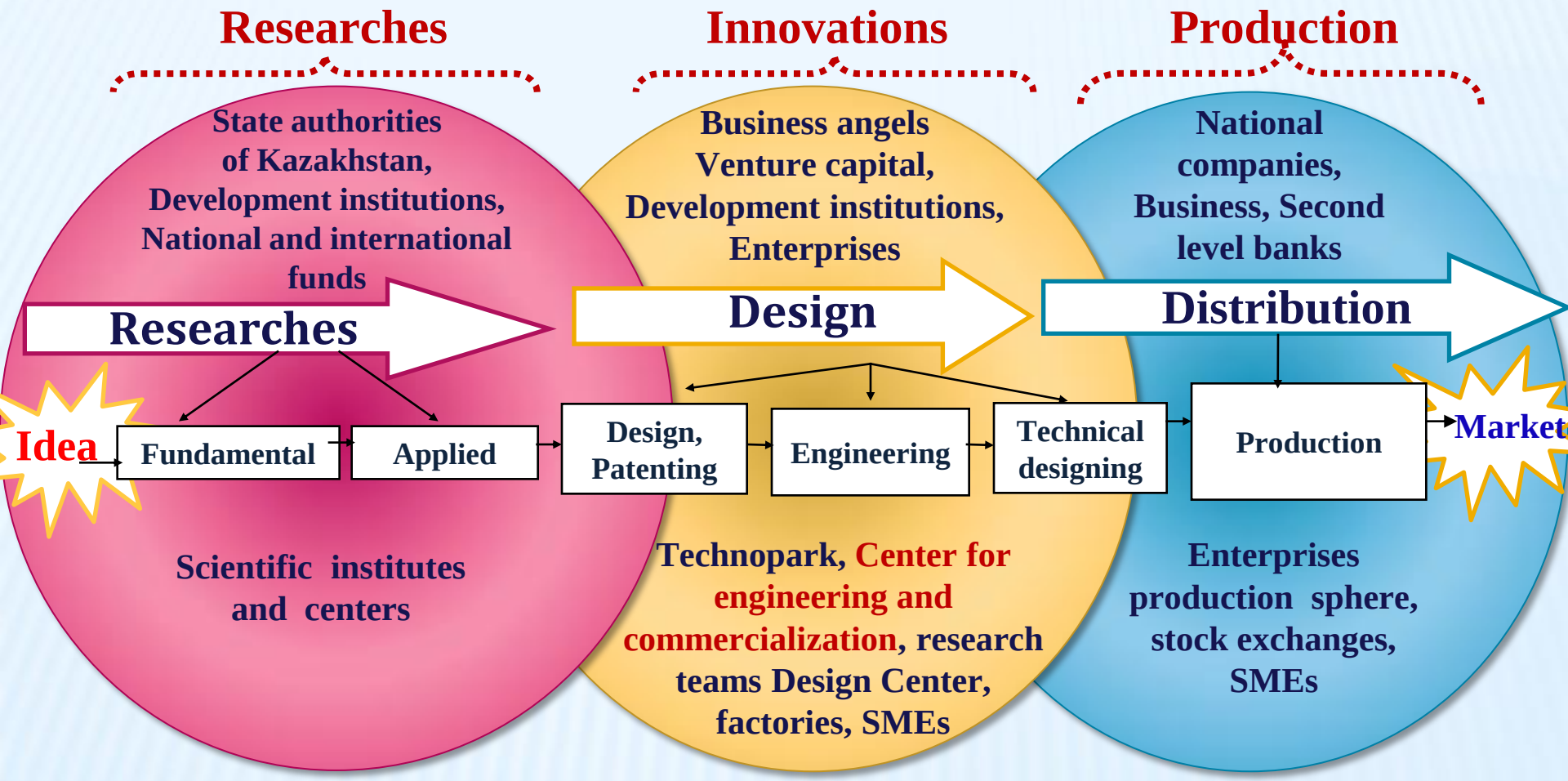
Socio-humanity institutes and centers

- Abay Research Institute
- Institute of State and Law
- Confucius Institute
- Institute of Security and Cooperation Problems
- International Institute of Kipchak Studies
- Orazbayev Center for Archaeology and Ethnology
- NATO Information and Resource Centre
- Center for Sociological Research and Social Engineering
- Versatile scientific and innovative center of the educational services "GLOSS"
- Research and Innovation Center for Educational Studies
- Research and Educational Center for German Studies
- Training and Research Center Ancient Turkic scripts
- Center for Environmental Safety and Natural Resources
- Turan-Iran
- Research Centre for Korean Studies
- Center for Arabic Studies
- Research Institute of Archaeology and Ethnology
- Center for Psychological Technology and Innovation
- Center for Economic Research
- Center for Legal support of innovation development of RK
- The European Information Centre
- Center of problems of fight against crime
- Resource Center for American and Democratic Studies
- Republican Center «Al-Farabi»
- Center for Religious Research and Expertise
- Center of Ethnopedagogics and Ethnic Psychology
- O.Suleimenov Scientific and Research linguistic center
- Scientific-educational and cultural center of TURKSOY

Former research institutes of Academy of Sciences (Gylym Ordasy) integrated with Al-Farabi KazNU

- Institute of Mathematics and Mathematical Modeling
- Institute of Information and Computer Technologies
- Institute of Economics
- C.Valikhanov Institute of History and Ethnology
- M.Auezov Institute of Literature and Art
- R.Suleimenov Institute of Oriental Studies
- A.Baitursynov Institute of Linguistics
- U.Dzholdasbekov Institute of Mechanics and Engineering
- Institute of Philosophy, Political Science and Religious Studies
- A.Margulan Institute of Archaeology

Research-Innovation Way ("Pipe")

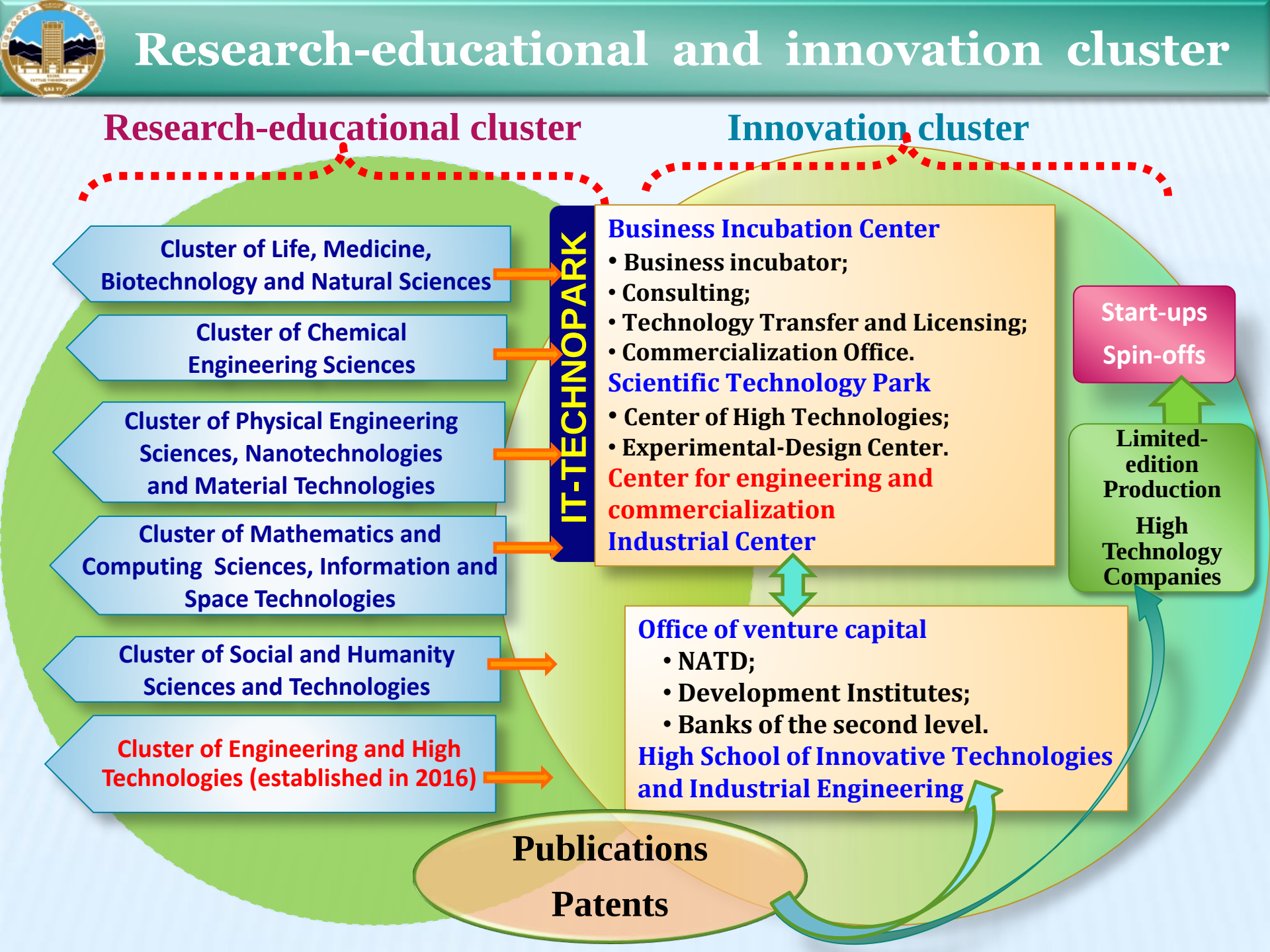


- Publications with IF, h-index
- Protective documents
- Prototype

- production prototype
- Creation of start-up companies
- License agreements, technology transfer

- Production output
- Small scale, serial production

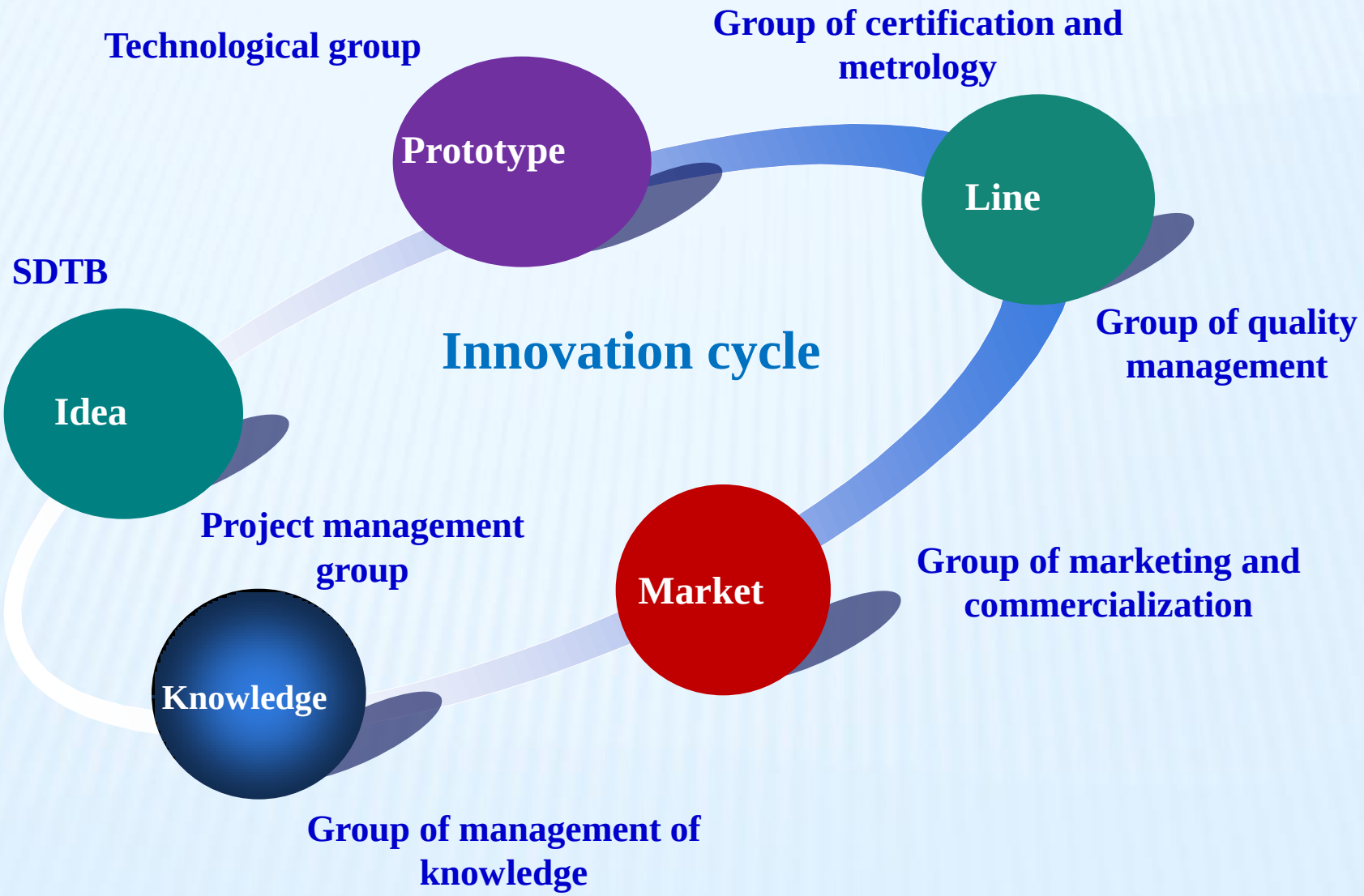
Research-educational and innovation cluster



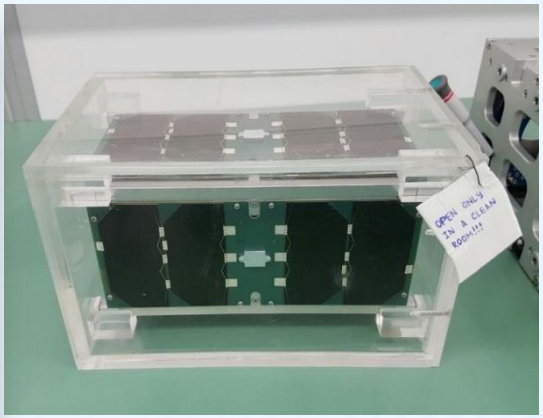
Center for Processing Innovations
(Center for Engineering and Commercialization)

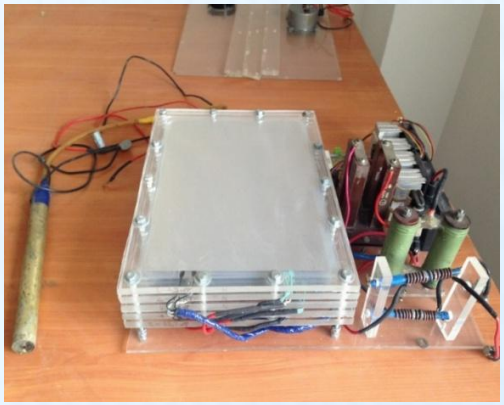
The Center for Processing Innovations (Center for Engineering and Commercialization) was created on the basis of Al-Farabi KazNU, its activity aimed at development of technological solutions, innovative technologies and products by request of industrial enterprises.

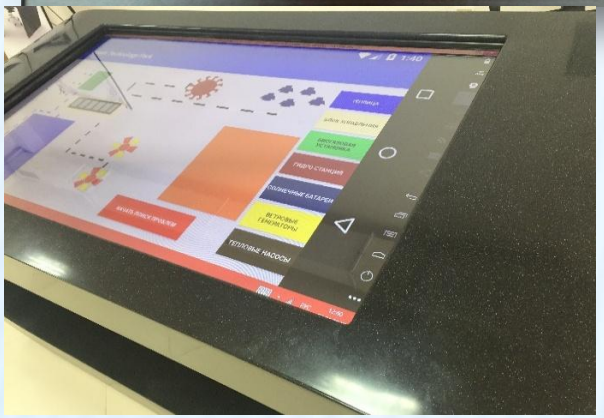
Center for Processing Innovations
(Center for Engineering and Commercialization)

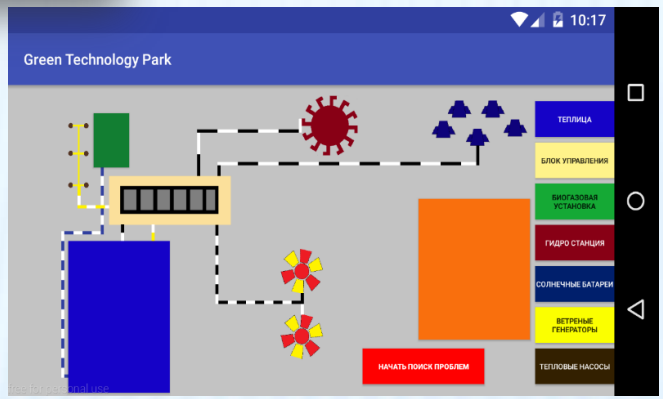


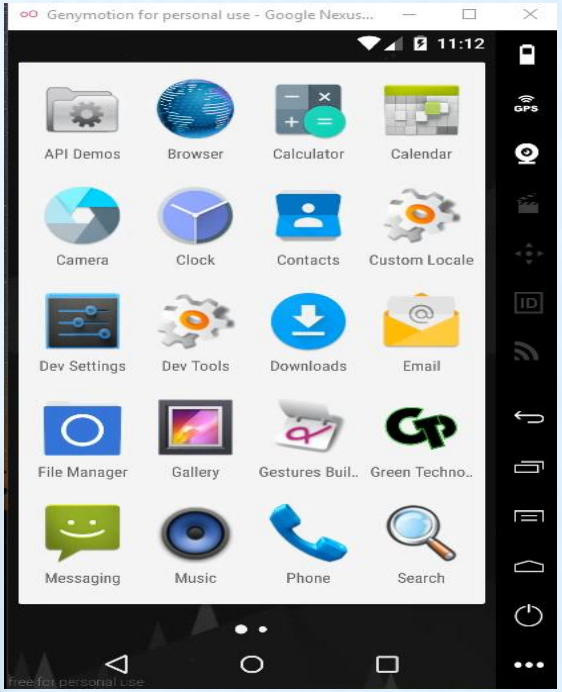
Developments of the Center for Processing Innovations

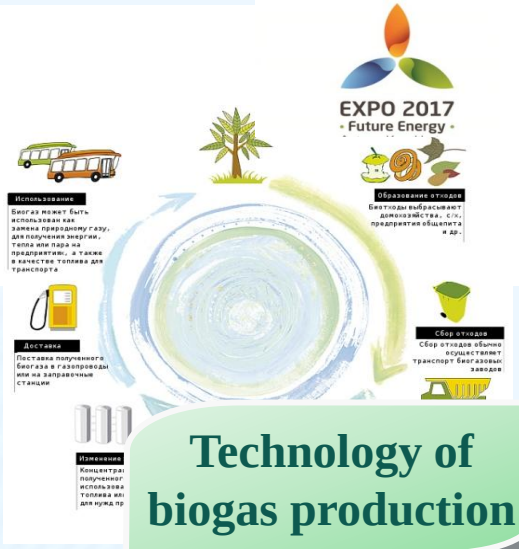












Technology of biogas production

Wind Energy Technology

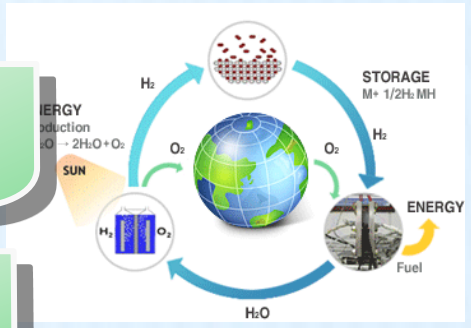
GREEN CAMPUS

A part of The Green Dream Programme

Solar Energy Technology

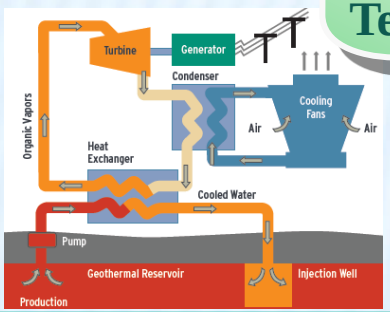
Center for «Gree Technologies»

Hydropower Technology



Hydrogen Energy

Geothermal Technology

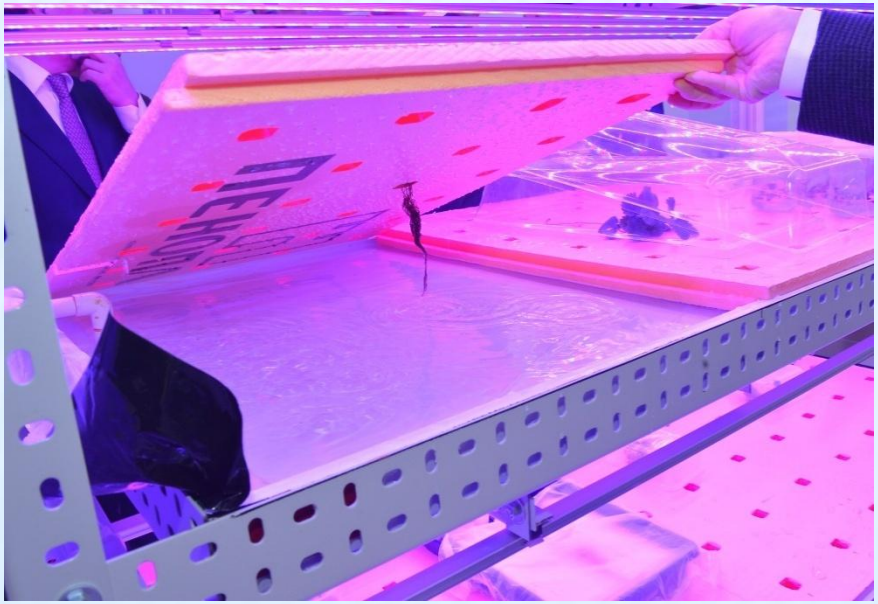


Aquaponics

SMART AL-FARABI UNIVERSITY

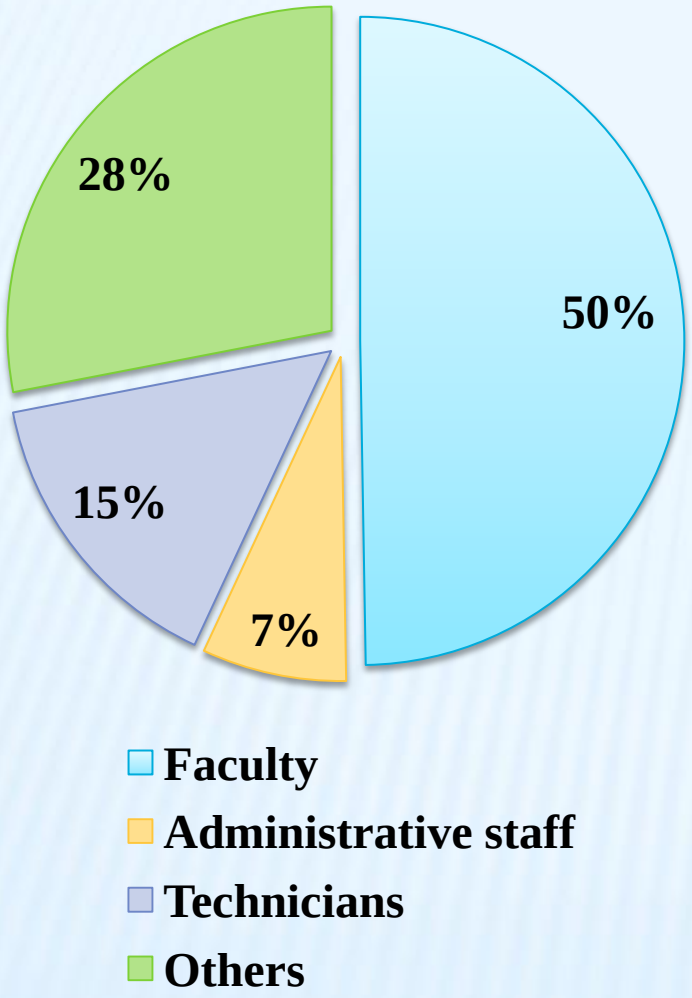
Creation of «Mini-EXPO» city for implementation of innovation projects on «Green Energy», and training of specialists of a new formation on the basis of modern technologies and high-technology engineering, with using alternative energy technologies: wind, solar, hydro, geothermal and biogas.

The opening of Plant Factory laboratory for microclonal propagation as a part of cooperation between Al-Farabi KazNU and Dankook University (South Korea)

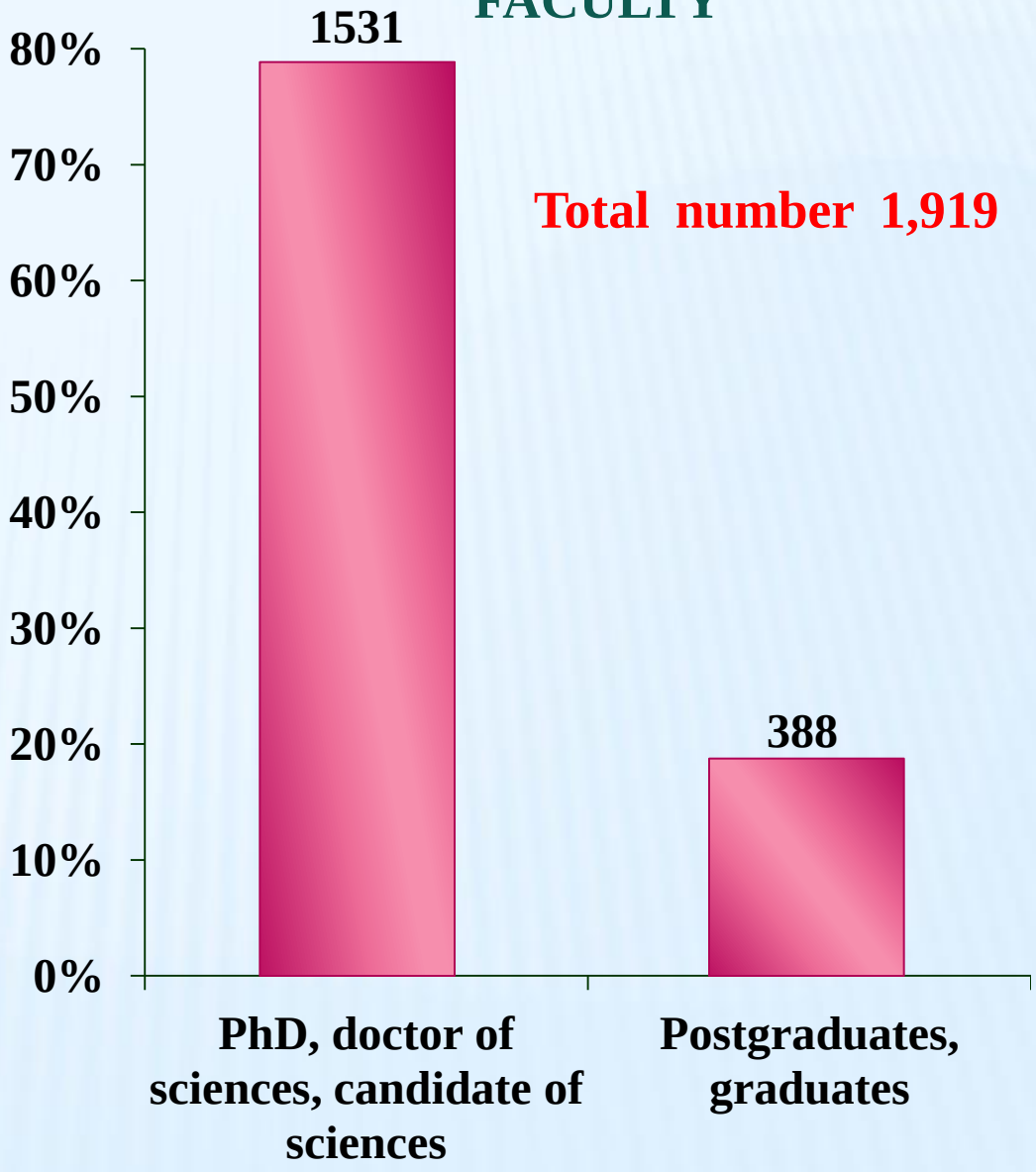


Contingent Staff Summary

EMPLOYEES



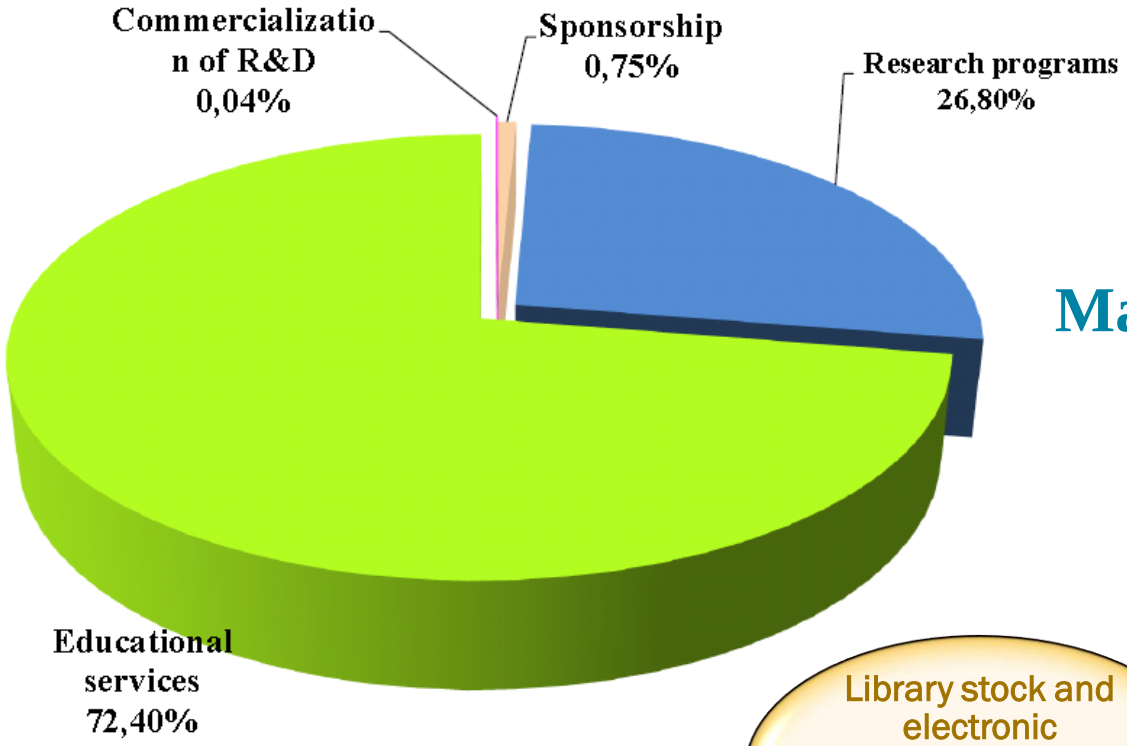
FACULTY



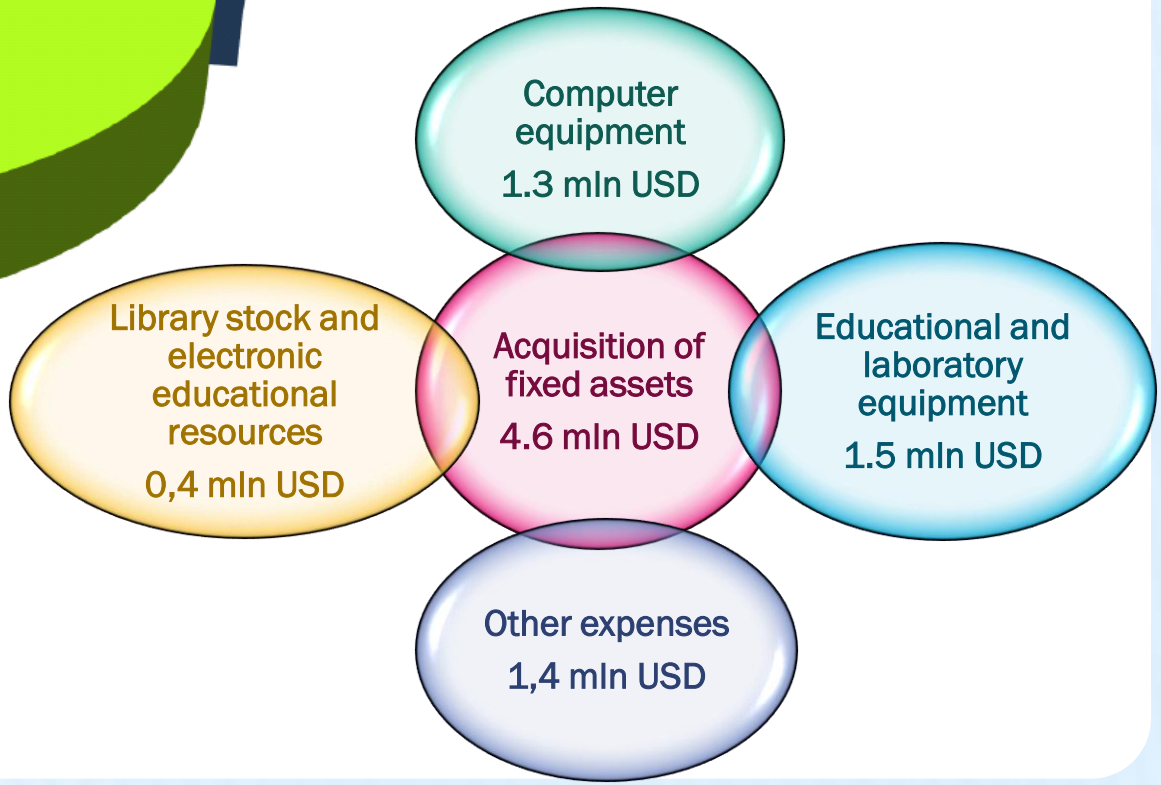
Total number 1,919

Financial and economic performance indicators

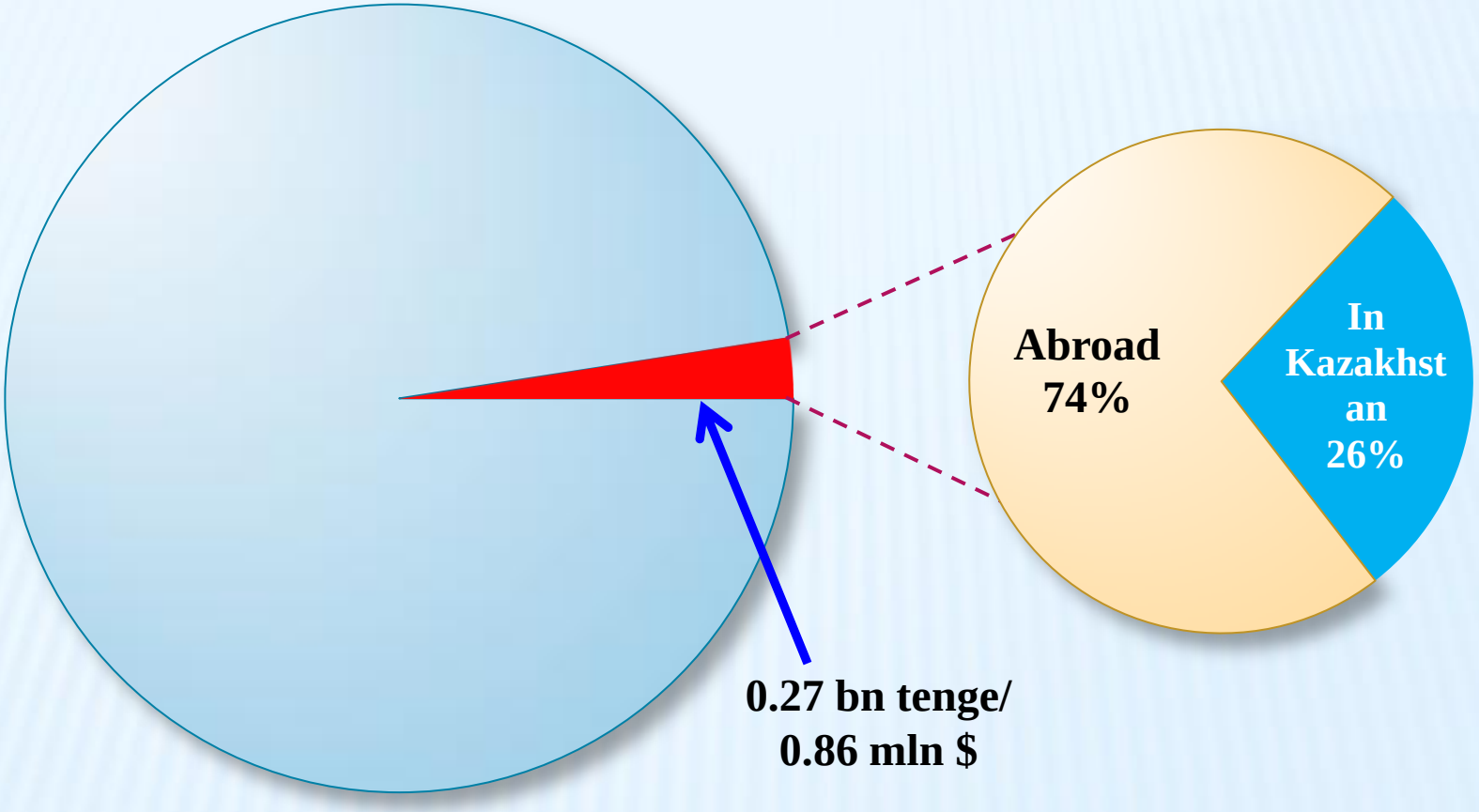
The proportion of university income for 2016



Material and technical base



Capacity building activities



Opening ceremony of the Truimphal Arch «Mangilik El» of Al-Farabi KazNU

Opening ceremony of the D. Balandin swimming pool

D. Balandin is a champion of the 2016 Summer Olympics from Kazakhstan

On-going programmes

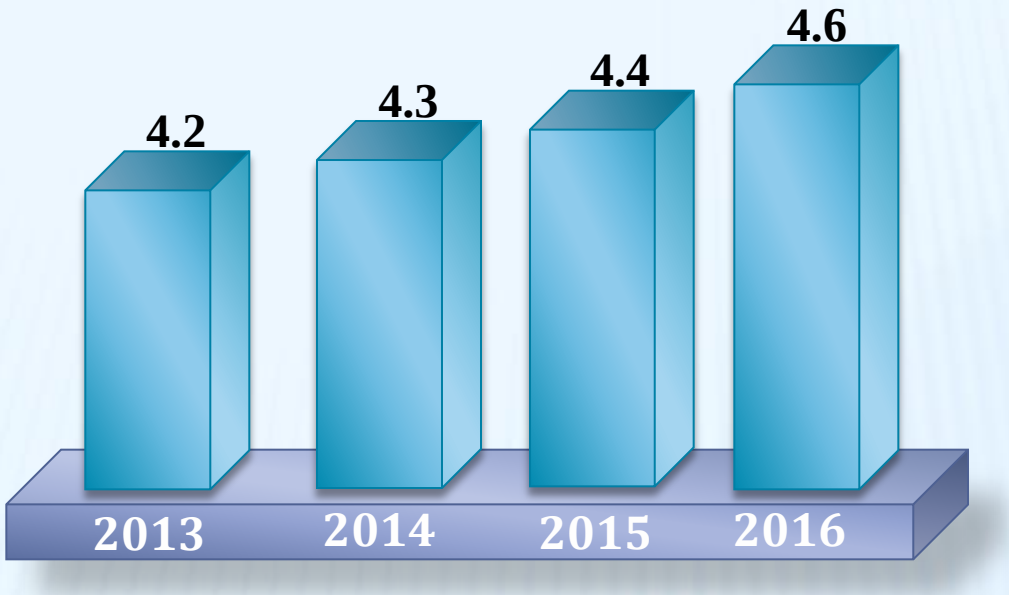
Projects and funding

In 2016 the scientists of the University implemented 533 projects with total funding of 4.58 bn tenge (14.8 mln. USD), including:

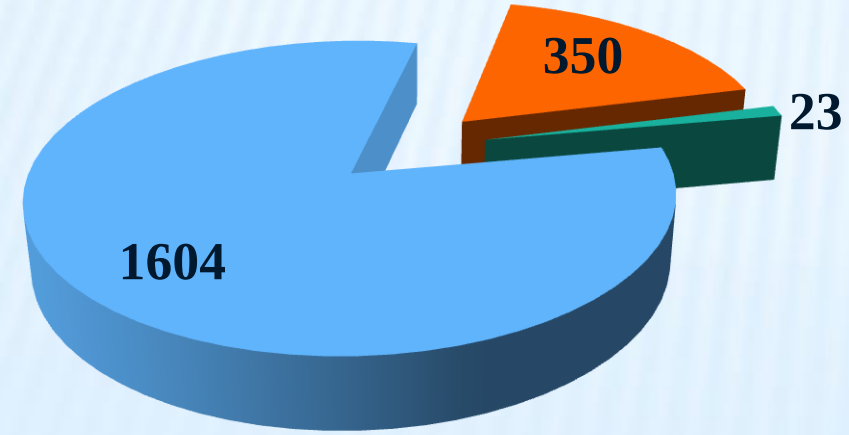
- **247 projects of grant funding of Ministry of Education and Science of the Republic of Kazakhstan on ASE RSI of Al-Farabi KazNU;**
- **7 projects of program-targeted funding of Ministry of Education and Science of the Republic of Kazakhstan on DRIA of Al-Farabi KazNU;**
- **2 projects of the JSC «National Agency for Technological Development»;**
- **89 research works within the framework of business agreements with organizations and enterprises;**
- **188 grants of international funds and organizations.**

Research activity

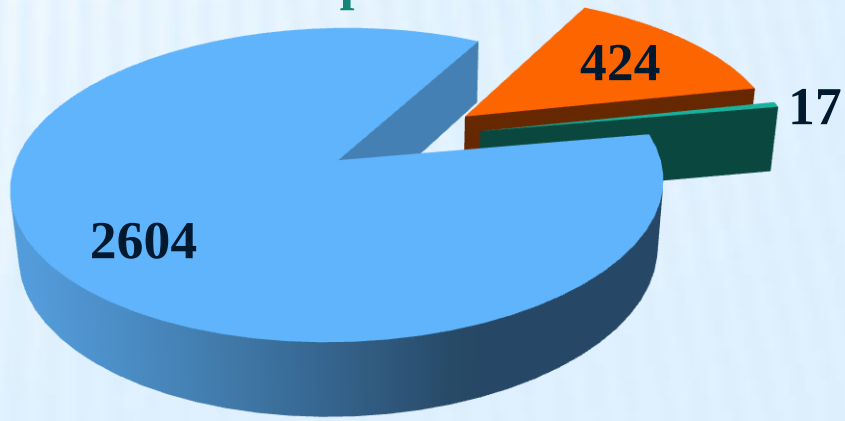
The amount of research activity funding (bn tenge)



Publications in high-ranked journals of Thomson Reuters in 2016



Publications in high-ranked journals of Scopus in 2016



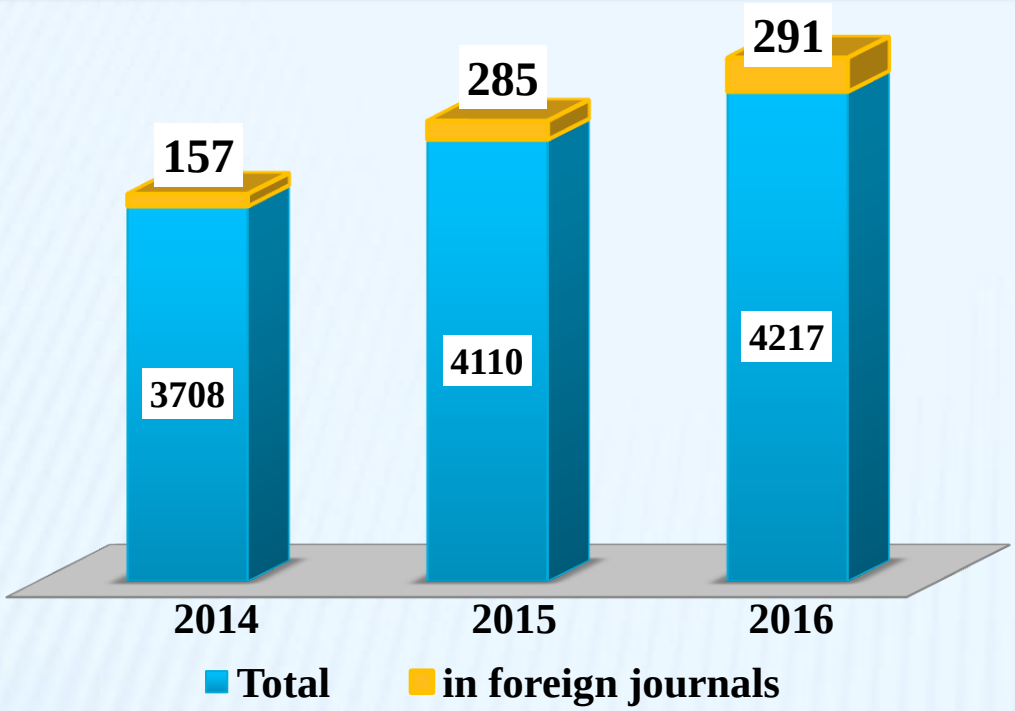
IV INTERNATIONAL FARABI READINGS

APRIL 4-21, 2017

INTERNATIONAL AL-FARABI FORUM «AL-FARABI AND MODERNITY»

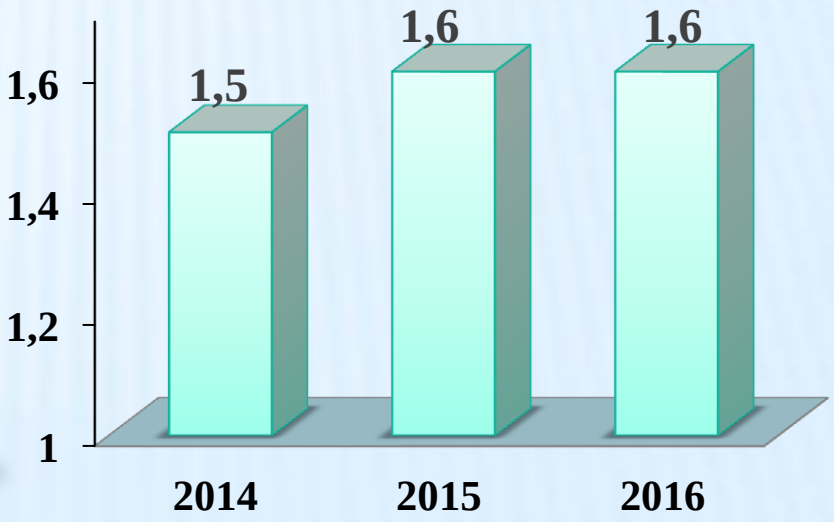
7 international conferences, 3 round tables, International Student Forum «Green Bridge across generations» and International scientific conference of students and young scientists «Farabi alemi» were held within the framework of the IV International Farabi readings dedicated to the International exhibition EXPO-2017 in ASTANA

The research activity of students

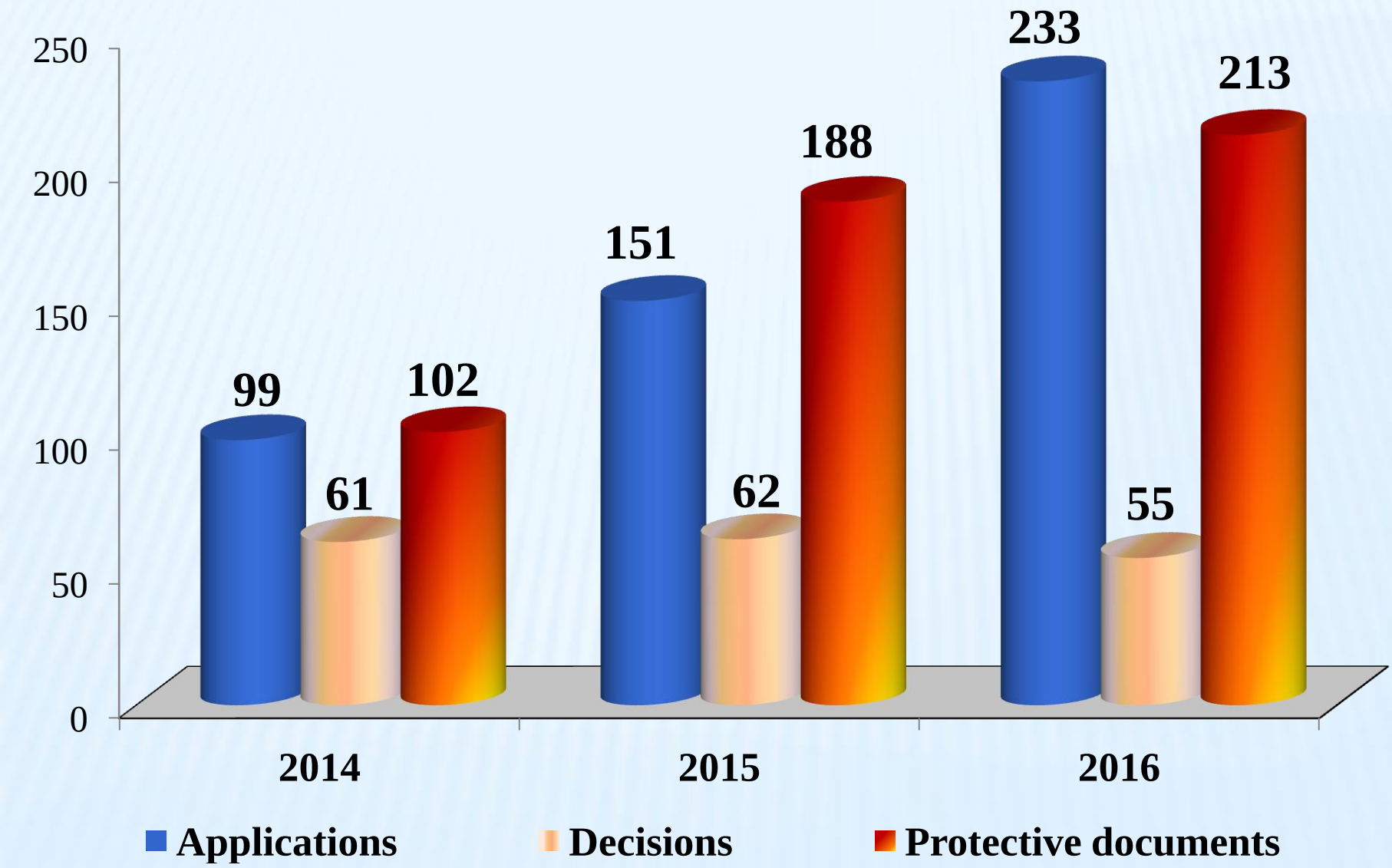


Publication activity of students for 3 years

Allocations for attracting students to research projects on a paid basis (mln USD) for 2014-2016



Patent-licensing activity



Spin-off companies, created according to the Grant Program for the Senior and Junior Researchers' Groups within the framework of implementation of the Project «Stimulation of Productive Innovations», supported by the World Bank

«QAZTEX Innovations», Ltd.

Organization of production of energy-efficient keyboards with optical coding

Project manager: Kabdushev Sh.

Purpose: Organization of own production of energy-saving keyboards with optical coding, in which the receiver of emission is a solar photovoltaic panel, operated in two switchable modes

Expected results: :

- Organization of pilot production of energy-saving keyboards with optical coding.
- The prototypes of power-generating keyboards with optical coding of various modifications are planned to be demonstrated at EXPO-2017.

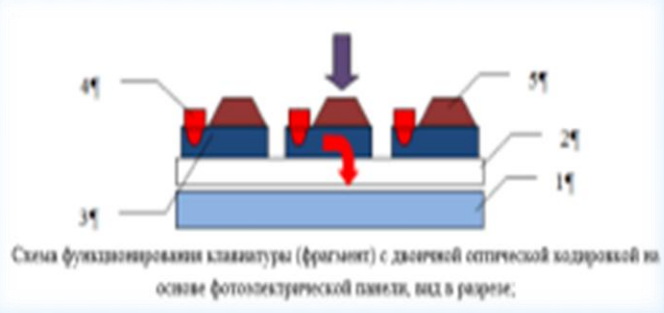


Схема функционирования клавиатуры (фрагмент) с двоичной оптической кодировкой на основе фотоэлектрической панели, вид в разрезе;

«Innovation enterprise «Sterin», Ltd.

Production of lanolin by separation of wool grease from wool wash water

Project manager: Konuspaev S.R.

Purpose:
Development of technology for lanolin separation from wool washing.

Expected results:
The technology for full separation of wool grease from wool wash water and re-use of purified water in the wool washing cycle.

«GreenWell Mechanics», Ltd.

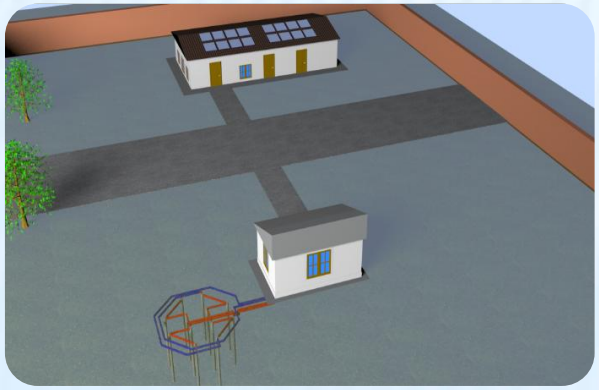
Technology of seasonal accumulation of solar thermal energy for heating and hot water supply in internal areas

Project manager: Tungatarova M.

Purpose: Development of technology for seasonal accumulation of solar thermal energy for heating and hot water supply in internal areas on the basis of a system of borehole heat-energy accumulators (STEA) and a short-term battery with high-density material for energy storage

Expected results:

- A short-term battery with high-density material for storage of daily fluctuations of solar thermal energy
- Integrated system of ground heat exchanger and short-term accumulator for heating and hot water supply of residential area / multi-storey buildings



«Polyester project», Ltd.

Innovation biopreparation "Miko-Oil" for soil and water purification from oil pollution and agro-microbiological technology of its application

Project manager: Mukasheva T.D.

Purpose:
Production and sale of the innovative biological preparation "Miko-Oil" for purification of soil and water from oil pollutants. Sale of the technology of its production.

Expected results:

- Organization of malotonous production of biological preparation "Miko-Oil"
- Obtaining patents for "Miko-Oil" biopreparation and technology for its production.
- Promotion of innovative preparation "Miko-Oil" on the market.

«BioClean», Ltd.

Creation of the pilot production of polyester resins for special purposes

Project manager: Irmukhametova G.S.

Purpose: Creation of pilot production of polyester resins with increased strength, toughness and hardness for manufacturing composite and building materials, fiberglass, artificial stone, car body parts, radio-shielding kits

Expected results: Pilot production of polyester resins with a capacity of up to 300-350 tons/year will be created. The prime cost of obtained resins is estimated at 1.9- 2.7 USD/kg. The range of produced resins is 3-5 kinds of products. A new technology will be developed for production of non-toxic substrates from waste plastic containers.

The State program of industrial and innovative development of Kazakhstan for 2015-2019

The State program of industrial and innovative development of Kazakhstan for 2015-2019 is developed in accordance with the long-term priorities of the Strategy «Kazakhstan-2050»

Goal

- Stimulation of diversification and improvement of competitiveness of the manufacturing industry

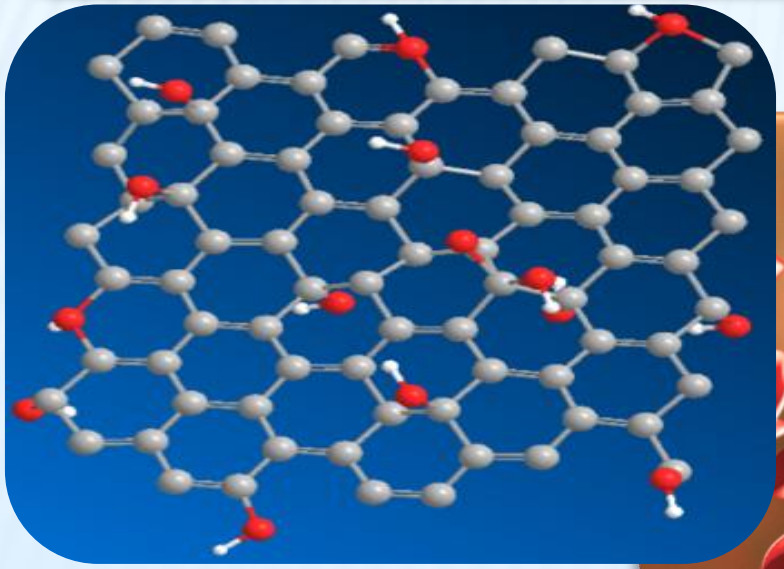
Tasks

- advanced development of the manufacturing industry;
- improvement of efficiency and increasing the added value in the priority sectors;
- expansion of markets for non-primary goods;
- increase of productive employment;
- giving a new level of manufacturability to priority sectors of industry and providing a basis for development of future sectors through the formation of innovation clusters;
- stimulation of entrepreneurship and development of small and medium-sized businesses in the manufacturing industry.

New educational programs for 2016

Green energy for industry

Nanomaterials and Nanotechnologies for Industry



Perspective directions of SPIID-II

- Oil and gas complex
- Chemical Industry
- Metallurgical complex
- Food industry
- ICT / Space technologies
- “Green” Energy
- Pharmaceutics

Opening of laboratories

Research

Increasing the material-technical base

2015	2016	2017
2,1 bn tenge/ 11,7 million $	2,3 bn tenge/ 12,5 million $	2,3 bn tenge/ 12,5 million $

Al-Farabi Kazakh National University

Directions of SPIID-II:

Oil and gas complex

KazTransOil, ШНОС, КазМунайГаз, Petro Kazakhstan

Metallurgical complex

KAZZINC, KAZAKHMYS, РОСНАНО, ENRC

Chemical Industry

КОНДЕНСАТ группа компаний, Объединенная химическая компания, КАУСТИК

Food industry

antiGen, КАЗАГРО, Adal

“Green” Energy

SAMRUK ENERGY, KEGOC, EXPO2017 ASTANA, KAZATOMPROM НАЦИОНАЛЬНАЯ АТОМНАЯ КОМПАНИЯ

ICT / Space technologies

NATD, КАЗАҚТЕЛЕКОМ, hp, CISCO, ҚАЗАҚСТАН ГАРЫШ САПАРЫ, КАЗКОСМОС

Educational Programs:

- petrochemistry

UNIVERSITÉ DE LORRAINE, РОССИЙСКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ НЕФТИ И ГАЗА имени И. М. ГУБКИНА, Saitama University 埼玉大学

- Materials science and technology of new materials,
- Nanotechnologies

ESA, KIT Karlsruhe Institute of Technology, The Hong Kong Polytechnic University 香港理工大學, Universytet Łódzki

- Chemistry and technology of rare and rare earth metals

University of Reading, Institute of Chemical Technology Prague, Middlesex University, 大阪大学 Osaka University

- Genetic engineering,
- Food and Biological Safety,

The University of Nottingham UNITED KINGDOM · CHINA · MALAYSIA, Seoul National University, Sapienza Università di Roma

- Nuclear power,
- Alternative energy and energy saving technologies
- Geo energy

JINR, CERN, Московский государственный университет имени М.В. Ломоносова, UNIVERSITÉ DE LORRAINE

- Automation and robotics, space technologies,
- Innovation management, innovative entrepreneurship

東京大学 The University of Tokyo, Université de Strasbourg, 北海道大学 Hokkaido University

Personnel training for SPIID-2

Directions of SPIID-II:

Information and communication technologies

Pilot educational programs:

- Automation and control of technological processes;
- Information technologies for space monitoring systems;
- Mathematical and computer modeling of technological processes;
- Geo energy and information technologies for efficient development of mineral deposits;
- Mechanics of machines and manipulators, creation of intelligent robots;

Industrial chemistry

Agrochemistry

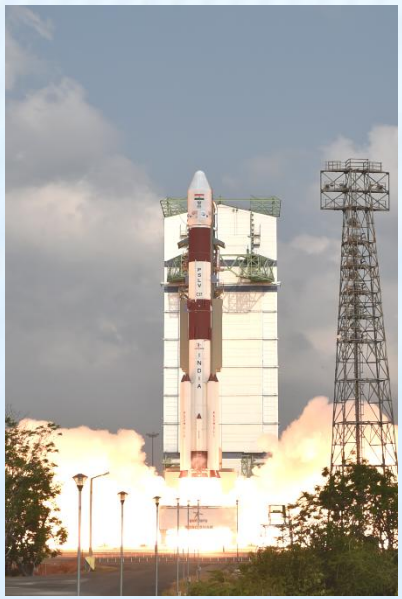
- Chemistry and technology of organic materials;
- Chemistry and technology of inorganic materials.

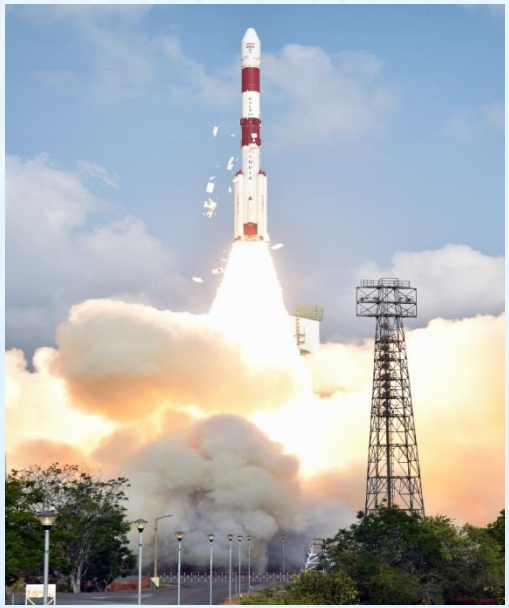
- Chemistry and technology of production of mineral fertilizers and ameliorants;
- Chemistry and technology of plant protection products.

Nanosatellites «Al-Farabi»

First time in Kazakhstan the scientific and technological nanosatellites “Al-Farabi-1” and “Al-Farabi-2” are designed and assembled on the basis of the University within the framework of realization of the student international project UNIFORM with the University of Tokyo

15 February, 2017 The Indian Space Research Organization (ISRO) put into orbit a record 104 satellites on the Polar Satellite Launch Vehicle (PSLV), 3 of which were Indian, and others - from foreign countries, including nanosatellite «Al-Farabi-1» from Kazakhstan, created by Al-Farabi KazNU and weighing 1.7 kilograms.





The best projects of Student business incubators in 2016

«CANSAT- the first step to the spacecraft»

«Integrated technology of co-cultivation of valuable fish and plant species»

«Creation of new energy-saving window/screen systems»

«Yukilim»

«GeoMap»

«Electronic map of Turkic-speaking peoples»

«Gas leak detector»

Student Start-up companies

«Biohumus»

«Zhana urpak»

«Mediaschool «Ecosystems protection»

«RobiGroup»

«JELLY»

«Young Labor»

Al-Farabi Smart City

Al-Farabi Smart University - a pledge of creation of smart city, smart economy, scientific and technological progress based on the spiritual and moral foundations

«Point of growth» of innovation economy

«Point of growth» of a new worldview

"Point of growth" of innovation economy

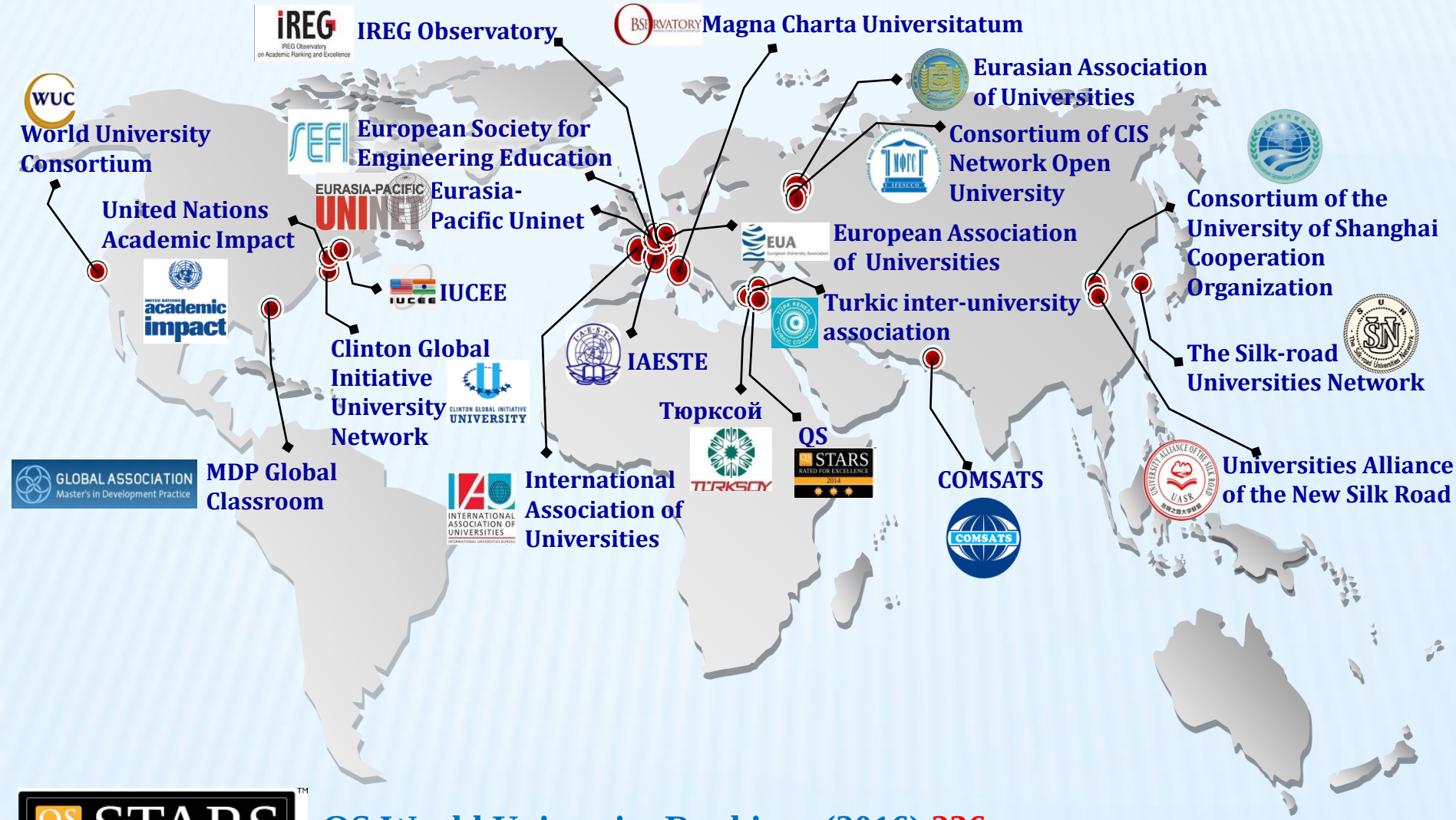
- ✓ Corporate network, e-Campus
- ✓ Security monitoring system
- ✓ Smart-library
- ✓ Students Service Center – Micro model of the smart city
- ✓ Technology parks, business incubators, innovation and biomedical clusters
- ✓ III stage of PIT "Alatau" development

"Point of growth" of a new worldview

- ✓ Code of corporate culture, honor code of student
- ✓ "Brighten your corner", "100 books"
- ✓ Pedagogical mentorship
- ✓ Implementation of breakthrough projects
- ✓ Competence-based approach
- ✓ An independent evaluation of students' knowledge
- ✓ Rating system of remuneration
- ✓ Student government

International collaboration

Membership in international organizations



QS STARS RATED FOR EXCELLENCE 2014

QS World University Rankings (2016) 236

QS Emerging Europe and Central Asia Ranking (2015) 21

Great Value Colleges (2015) 31

International recognition of KazNU

Global Hub for Sustainable Development of the Program "Academic Impact" of the United Nations

Regional Hub for Sustainable Development within the framework of the UNESCO Program – UNITWIN

KazNU is the only university in Central Asia acceded to:

World University Consortium (WUC) (2014)

Network of universities of Clinton Global Initiative – Clinton Global Initiative University (CGI U) (2015)

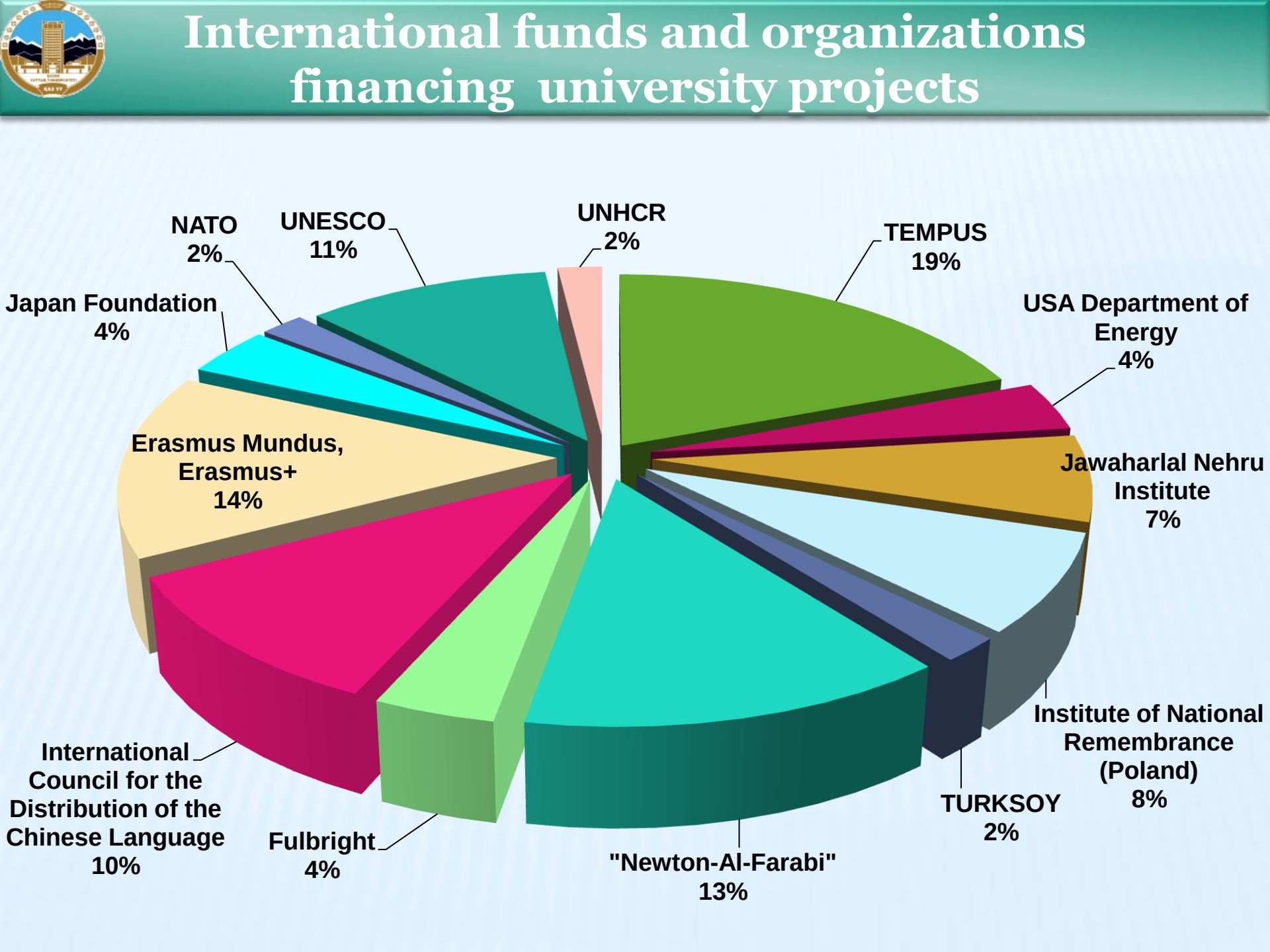
COMSATS organization, uniting 24 universities of the world (2014)

Alliance of universities of Silk Road countries (Silk-road Universities Network) and its Board of Directors (2015)

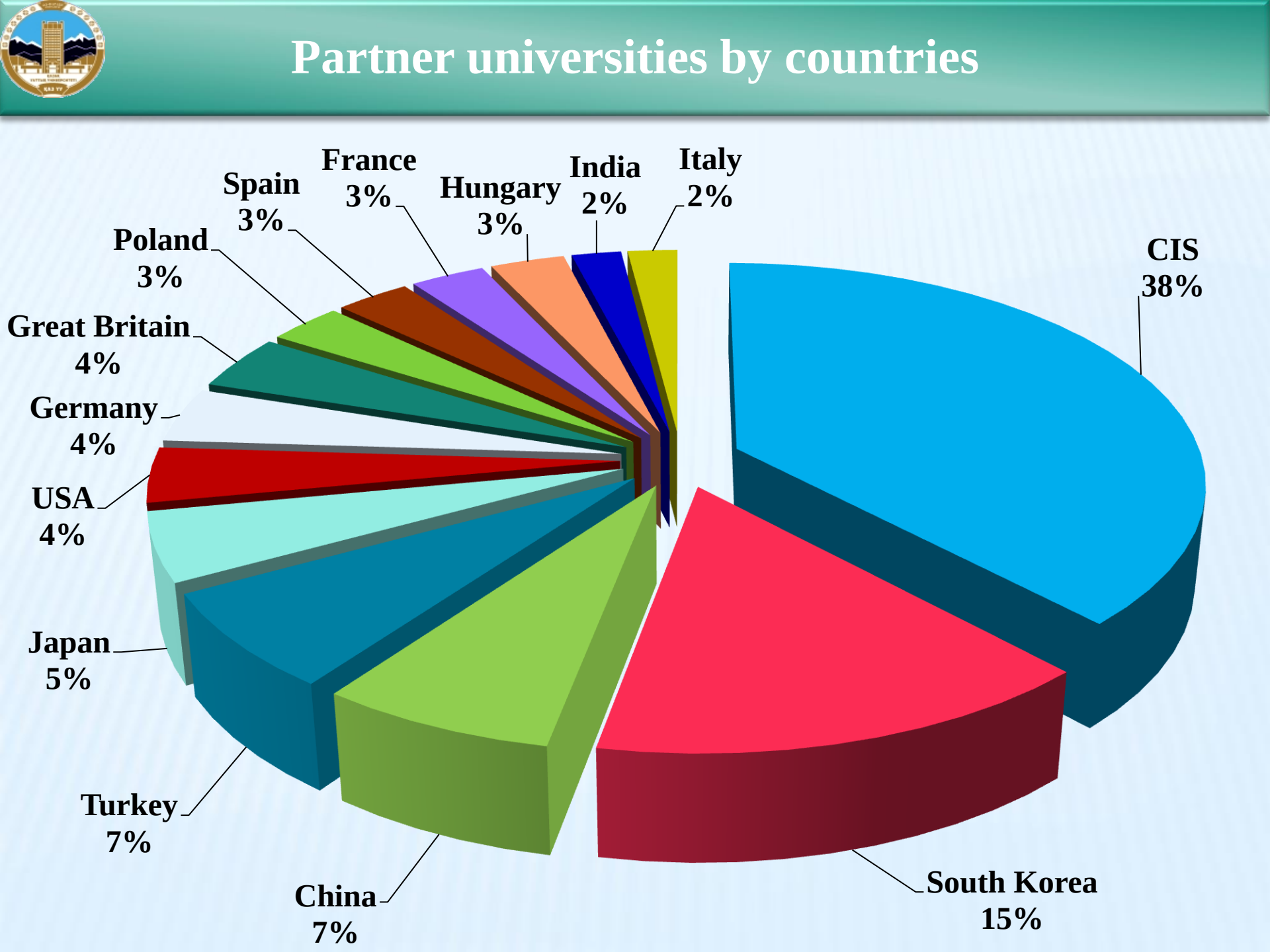
World Academy of Art and Science (WAAS)
Rector G.Mutanov is elected a member of WAAS

In the framework of the VII Astana Economic Forum on May 21-22, 2014, **III Asian Universities Forum** was held on the basis of the Al-Farabi Kazakh National University.

International funds and organizations financing university projects



Partner universities by countries



Participation in COMSATS' programmes

Joint projects of Al-Farabi KazNU and Excellence Centers of COMSATS

Collaboration with International Center for Chemical and Biological Sciences (ICCBS), Karachi, Pakistan

Project title: «Developing the capacities of Al-Farabi Kazakh National University, Kazakhstan in Phytochemical Development»

Performers: prof. Abilov Zh.A. (Al-Farabi KazNU), prof. Muhammad Iqbal Choudhary (University of Karachi).

Co-Executive: Karachi University (Pakistan).

Terms: 2015-2017.

The amount of funding: 80 000 USD.

Funding organization: Islamic Development Bank

The purpose of the project: to develop national potential of the Republic of Kazakhstan in the sphere of discovery and development of herbal medicines against various diseases.

Joint projects of Al-Farabi KazNU and Excellence Centers of COMSATS

INTERNATIONAL CENTER FOR CHEMICAL AND BIOLOGICAL SCIENCES
(H.E.J. Research Institute of Chemistry and Dr. Panjwani Center for Molecular Medicine and Drug Research)
University of Karachi, Karachi-75270, Pakistan

Prof. Dr. Muhammad Iqbal Choudhary
Director *Hilal-e-Imtiaz, Sitara-e-Imtiaz, Tamgha-e-Imtiaz*

Distinguished National Professor
D. Sc., Ph.D., C.Chem.,
Fellow of the Academy of Sciences for the Developing World
Fellow of the Islamic World Academy of Sciences
Fellow of the Pakistan Academy of Sciences
Fellow of the Royal Society of Chemistry
Fellow of the Chemical Society of Pakistan
Fellow of International Union of Pure and Applied Chemistry
Fellow of LEAD International
Fellow of the World Innovation Foundation

Tel. Off : (92-21) 34824924-5, 34819010
UAN : 111-222-292 (Ext.106)
Telefax : (92-21) 99261713-4, 34819018-9
E-mail : hej@cyber.net.pk
pcmd@cyber.net.pk
Web : www.iccs.edu

01.12.2015

Prof. Jarilkasyn A. Abilov
71 Kazakh State National University
Al-Farabi Avenue
Almaty 480078
Kazakhstan.

Subject: **Status of Co-P.I. for the Project Entitled, "Developing the Capacities of Al-Farabi Kazakh National University (KazNU), Kazakhstan in Phytochemcial Development".**

Dear Prof. Abilov:

I am pleased to inform you that our project entitled, "Developing the Capacities of Al-Farabi Kazakh National University (KazNU), Kazakhstan in Phytochemcial Development" (submitted to the Islamic Development Bank) is in the final stages of approval by the Islamic Development Bank, Jeddah, Saudi Arabia. Your name is included as the Co-P.I. from Kazakh side. A copy of the final project is enclosed herewith for your record.

With very best personal regards.

Sincerely yours,

PROF. DR. M. IQBAL CHOUDHARY, *H.I., S.I., T.I.*
Director

Joint projects of Al-Farabi KazNU and Excellence Centers of COMSATS

Collaboration with International Center for Chemical and Biological Sciences (ICCBS), Karachi, Pakistan

Project title: «Creation of production of new hydrogel therapeutic forms of phytopreparations on the basis of plant raw materials of Kazakhstan»

Project manager: prof. Abilov Zh.A. (Al-Farabi KazNU), prof. Muhammad Iqbal Choudhary (University of Karachi).

Co-Executive: Karachi University (Pakistan).

The purpose of the project: to develop technology for new high-performance polymeric hydrogel ointments and dressings containing synthetic anesthetic "Rihlokain" and phytopreparations based on plant raw materials of Kazakhstan.

Joint projects of Al-Farabi KazNU and Excellence Centers of COMSATS

International Center for Chemical and Biological Sciences (ICCBS), Karachi University, Pakistan

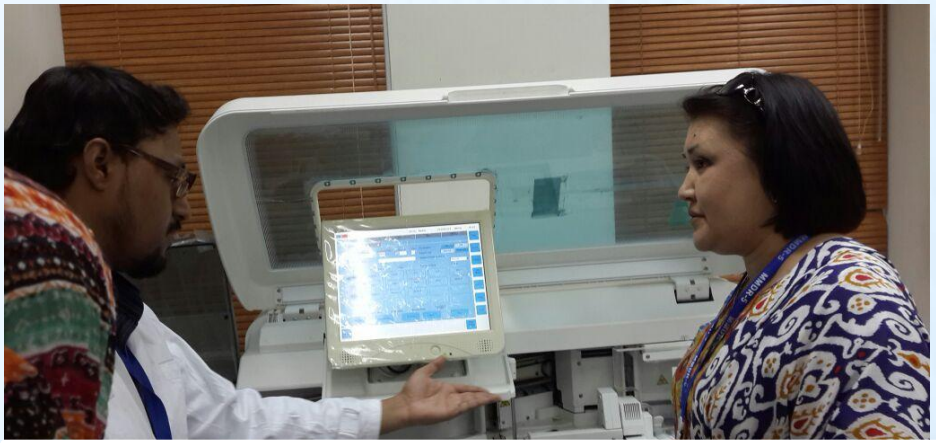
Iskhanov Y. – 2nd year PhD doctoral student of the Faculty of Chemistry and Chemical Technology has his internship course at the Karachi University (Pakistan) from February 1 to August 1, 2017.

Kalabaeva A. – 1st course Master student of the Faculty of Chemistry and Chemical Technology was on her internship course at the International Center for Biological and Chemical Research, Karachi (Pakistan, July 12 – August 5, 2016).

Joint projects of Al-Farabi KazNU and Excellence Centers of COMSATS

International Center for Chemical and Biological Sciences (ICCBS), Karachi University, Pakistan

Senior lecturer of Al-Farabi KazNU Kudaibergenova Bates with Professor **Muhammad Iqbal Choudhary** in the laboratory of the International Center for Research in Phytotherapy and Botanical Sciences, University of Karachi (Pakistan)



Associate Professor of Al-Farabi KazNU Eskalieva B. in the laboratory of the International Center for Research in Phytotherapy and Botanical Sciences, University of Karachi (Pakistan)

Muhammad Iqbal Choudhary, PhD, Professor of the Research Institute of Chemistry of the University of Karachi (Pakistan) was a research supervisor of doctoral student Seitimova G. on the topic of «The method of obtaining phytopreparations from certain psammopelitohalofites».

Participation of Al-Farabi KazNU scientists in COMSATS events

From October 31 to November 2, 2016 the senior teacher of Faculty of Physics and Technology, PhD Gaukhar Musabek took part in Regional Experts Meeting in a field of renewable energy with a focus on the use of microalgae processing with the resources of oceans, including solar and fuel elements, and also in the work of the constituent assembly of the international thematic research group on «Renewable Energy» COMSATS as an invited expert from Al-Farabi KazNU.

During the meeting, a protocol on cooperation between Al-Farabi KazNU and Tehran University was signed, which reflected proposals for joint research projects in particular in the field of solar energy.

Joint projects of Al-Farabi KazNU and Excellence Centers of COMSATS

Tehran University and Iranian Research Organization for Science and Technology (IROST)

Project title: «Formation and characterization of novel solar cells structures with enveloping layer of silicon nanowires»

Performers:

Project manager - Professor Ibrahim Suleymani, Tehran University, Tehran (Iran).

Professor Moazami, IROST, Tehran, (Iran).

Doctor Musabek Gaukhar, National nanotechnology laboratory of the open type of Al-Farabi KazNU, (Almaty, Kazakhstan).

Co-Executive: Tegran University (Iran); Iranian Research Organization for Science and Technology (IROST), (Iran).

Terms: 2017-2018.

The amount of funding: 20 000 USD.

The purpose of the project: to produce laboratory samples of solar cells.

Participation in Exhibition «Renewable energy technologies»
Islamabad, Pakistan, October 18-20, 2016

PhD doctoral student of Faculty of Physics and Technology Sekerbayev Kairolla visited the exhibition "Renewable energy technologies", dedicated to the achievements in the field of renewable energy. The following companies and organizations were represented at the exhibition: the Pakistan Council of Renewable Energy Technologies, the Renewable & Alternative Energy Association of Pakistan, Ingenious Engineering Products, Adaptive Technologies, Crest Led Lighting, Suntel Solar Products, Pak Agro Tech International , Pakistan Meteorological Department.

Conference of young scientists UKM-ISESCO-COMSATS IWYS-2016 in Putrajaya (Malaysia from November 26 to December 2, 2016)

The conference was held in the Hotel-Bangi Putrajaya hotel in the format of a seminar. The conference was organized by the National Malaysian University UKM, the Islamic Educational, Scientific and Cultural Organization ISESCO, and the COMSATS. Representatives of Malaysia, Kazakhstan, China, Japan, Turkey, Pakistan, Jordan, Bangladesh, Indonesia, and Iran.

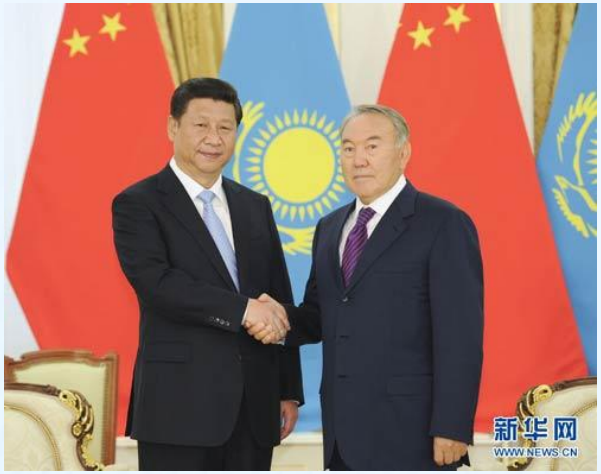
Zhunisbekov Askar, 1st year doctoral student in the specialty "Nanotechnologies and nanomaterials" made a report: ***«Obtaining of Hydrophobic and Hydrophillic Surface in Plasma Ar/CH4 Medium».***

As a result of the meeting, the possibilities of joint projects and exchange of experience were discussed

Conference participants

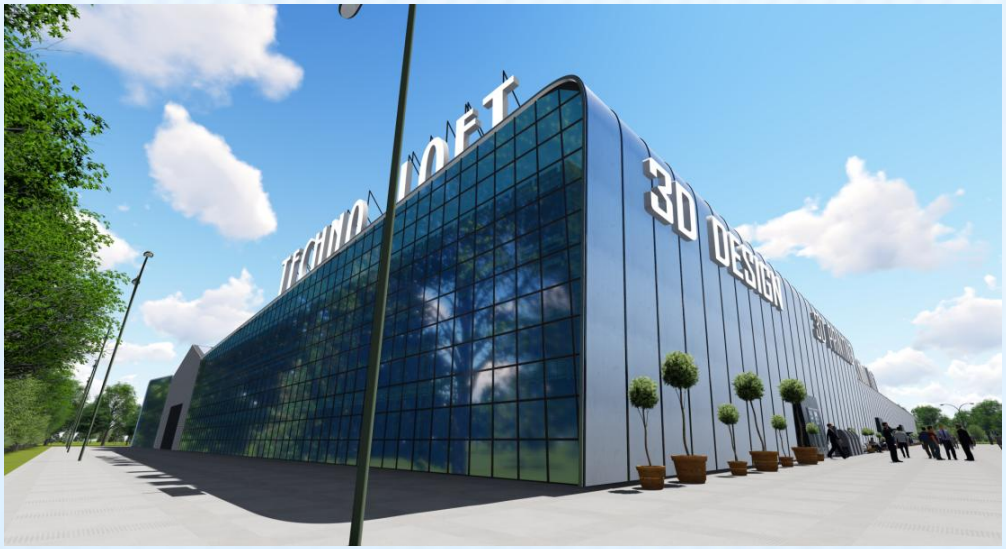
Future plans

«New Silk Way – Nurly Zhol»



IT TechnoPark of the University Alliance
"NEW SILK ROAD" on the "Silicon Valley" model

Center of Supercomputing and Cloud Computing of Al-Farabi KazNU



The project of supply and installation of a supercomputer

Center of Supercomputing and Cloud Computing of Al-Farabi KazNU

«Silk Way» Fund,
Ministry of commerce of PRC

60 teraflops
CPU

20 Teraflops
GPU

20 Teraflops
Cloud

10 Teraflops
MIC

Areas:

- **Ecological problems;**
- **Problems of oil and gas industry;**
- **The objectives of bioinformatics;**
- **E-campus;**
- **Nanotechnology; Seismic and exploration tasks;**
- **Economic and social forecasting;**
- **Health and others.**

13 teraflops
Virtual Desktop for E-campus

7 teraflops
Cloud computing

Interaction of IT-Technopark with Autonomous Cluster Fund (ACF)

1% of the total gross income of mineral developers

Subsoil users

ACF
AUTONOMOUS CLUSTER FUND

Subsoil users

III stage of PIT “Alatau” realization

aic association of innovative companies

+

IT-Technopark

Ecosystem «AQUAPONICA» on the territory of campus of Al Farabi KazNU

Creation of an artificial ecosystem "Aquaponica", which will be fed from the Kerenkulak River with a preliminary cleaning of its channel through the organization of a sewage treatment plant to create an environmentally sustainable and comfortable environment for university staff and residents of Almaty

CREATION OF AN UNIQUE PLACE FOR REST OF RESIDENTS AND GUESTS

RISE OF AN IMAGE OF THE CITY

ORGANIZATION OF THE WATER TREATMENT SYSTEM, PLANT GROWTH AND FISH CULTIVATION

Goals of Al-Farabi KazNU until 2020

- Enter the top 200 leading research universities in the world
- Transformation of the classical national university into the world-class research university
- To increase quantity of publications in rating journals with impact-factor to 2000
- To increase volume of revenues from commercialization of scientific developments to 1.8 bn tenges/10 mln $
- To achieve 98% employment of graduates
- To increase share of accredited educational programs to 100%

Proposals for participation in COMSATS' programmes

We would like to enter into a partnership with

International Center for Climate and Environment Sciences
Institute of Atmospheric Physics, Chinese Academy of Sciences

TÜBITAK Marmara Research Centre (MAM)

Embrapa Agrobiologia

International Centre for Environmental and Nuclear Sciences (ICENS)

National Research Centre (NRC) Egypt

and also we are glad to welcome other organizations

Great Value Colleges

The 50 Most Technologically Advanced Universities

1 place – École Polytechnique Fédérale de Lausanne

10 place – Cambridge University

12 place – Oxford University

30 place – University of Texas — Austin

31 place – **Al-Farabi Kazakh National University**

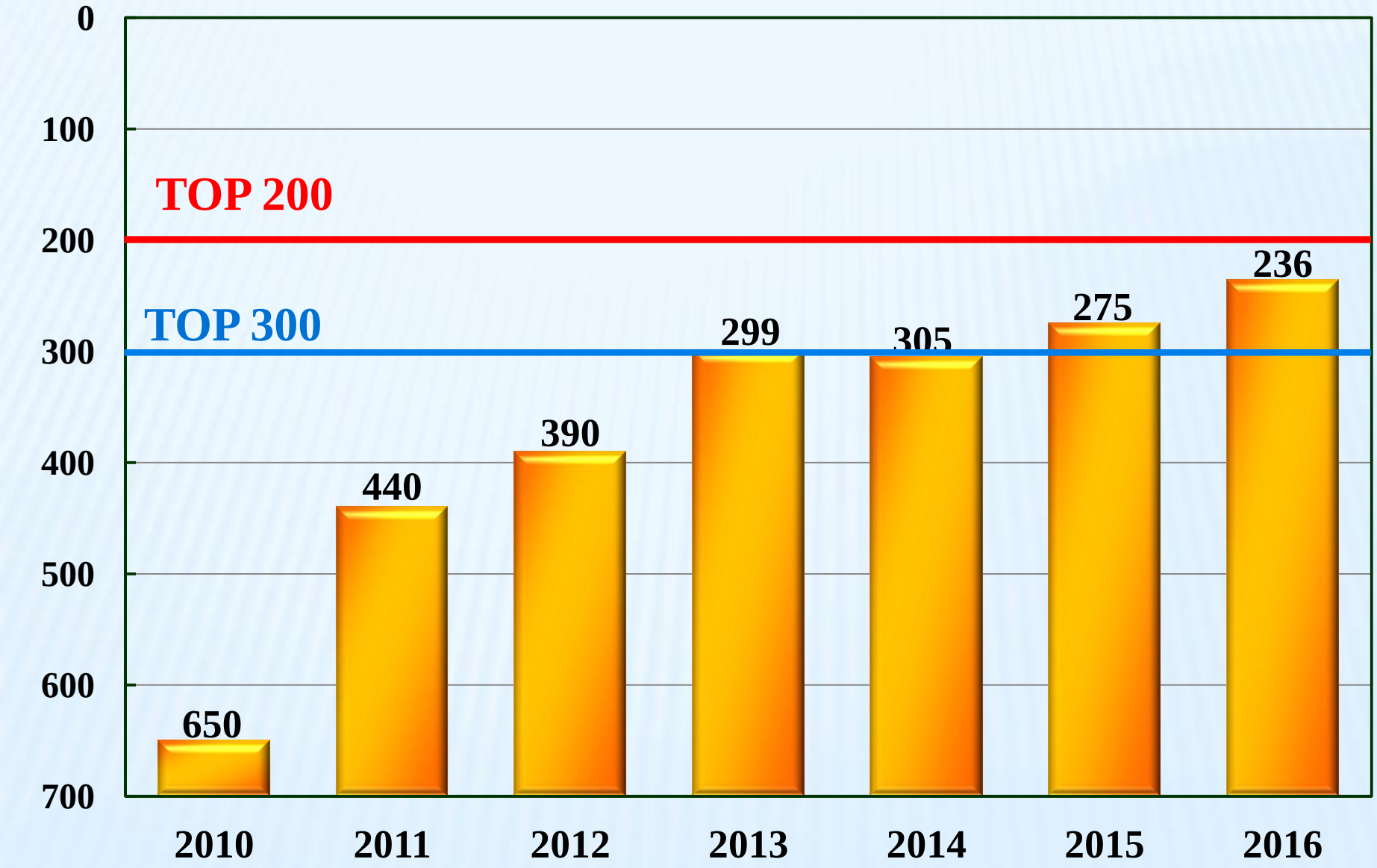
32 place – Australian National University

40 place – Utah State University

45 place – University of California San Diego

50 place – Wofford College

Al-Farabi KazNU in TOP-250 (QS World University Rankings)




Thank you for attention!