



Al-Farabi Kazakh National University

(Almaty, Kazakhstan)



Tlekkabul Ramazanov
Vice-Rector for Science & Innovations

Almaty, Kazakhstan, COMSATS, 2-4 April 2018



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



«Today the world is entering the era of the Fourth Industrial Revolution, an era of profound and rapid changes: technological, economic and social...»

«The most important issue is the development of our own ecosystem of developers of digital and other innovative solutions»



From the Address of the President of Kazakhstan N. Nazarbayev

ABOUT THE UNIVERSITY:

- **Faculties: 16**
- **Chairs: 64**
- **Research institutes: 24**
- **Laboratories of the National Level: 2**
- **Science and Technology Park**

ACADEMIC PROFILE:

- **19 120 students**
- **Bachelor specialties: 82**
- **Master specialties: 95**
- **PhD programs: 76**





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



10 Scientific Institutes



«Gylym Ordasy»

**5 Scientific Institutes,
18 Scientific Centers
and 1 Laboratory 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

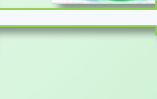
International Relations

Oriental Studies

Pre-College Education

High School of Public Health (established in 2016)

Information Technologies (established in 2017)





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**



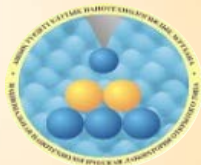
**Center of Physico-
Chemical Methods of
Research and Analysis**



**Institute of Biology and
Biotechnology Problems**



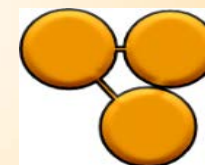
**Institute of Ecological
Problems**



**National Nanotechnology
Open Laboratory**



**Scientific and
Technology Park**



**Laboratory of
Engineering Profile**



Socio-humanity institutes and centers

Research Centre for Korean Studies

Research and Education Center for Study of Japan and Central Asia (Almaty Office of Tsukuba and al-Farabi KazNU)

TURKSOY scientific-educational and cultural center

Research and Innovation Center for Economical Studies

Abay Scientific Research Institute at al-Farabi KazNU

Scientific Research Center “Computer Linguistics”

O.Suleimenov Scientific and Research linguistic center

Institute for Security and Cooperation Problems

Resource Center for American and Democratic Studies

Research and Educational Center for German Studies

United Nations Regional Center

Research and Educational Center for European Law

Scientific Research Center of Cognitive Neuroscience

**Republican Research and Educational Center
“Al-Farabi and spiritual culture of the Kazakh people”**

T.T. Tazhibayev Center for Ethnopedagogics and Ethnic Psychology

Research Center for Gender Education

Center for Sociological Research and Social Engineering

Research and Innovation Center for Educational Studies

Institute of State and Law

International Institute of Kipchak Studies

Research and Educational Center for Remote Sensing of the Earth

Scientific Research Laboratory for Health and Environment

Research and Education Center "Digital technologies and robotics"

Scientific Research Institute of Archeology and Steppe Civilizations



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

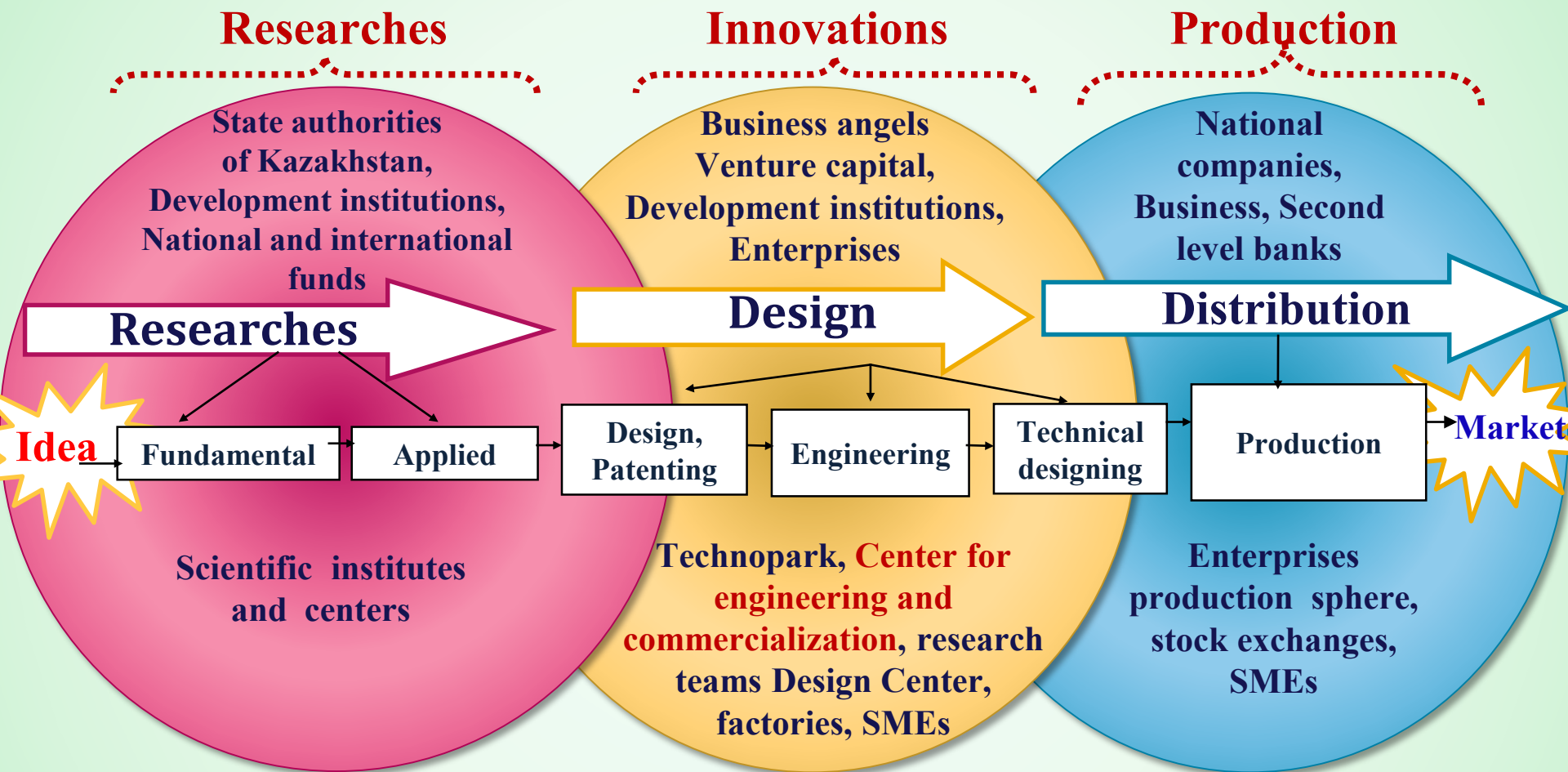
Institute of Philosophy, Political Science and Religious Studies

A.Margulan Institute of Archaeology





Research-Innovation Way (“Pipe”)



- Publications with IF - 1835
- h-index - 710
- Protective documents - 836
- Prototypes - 61

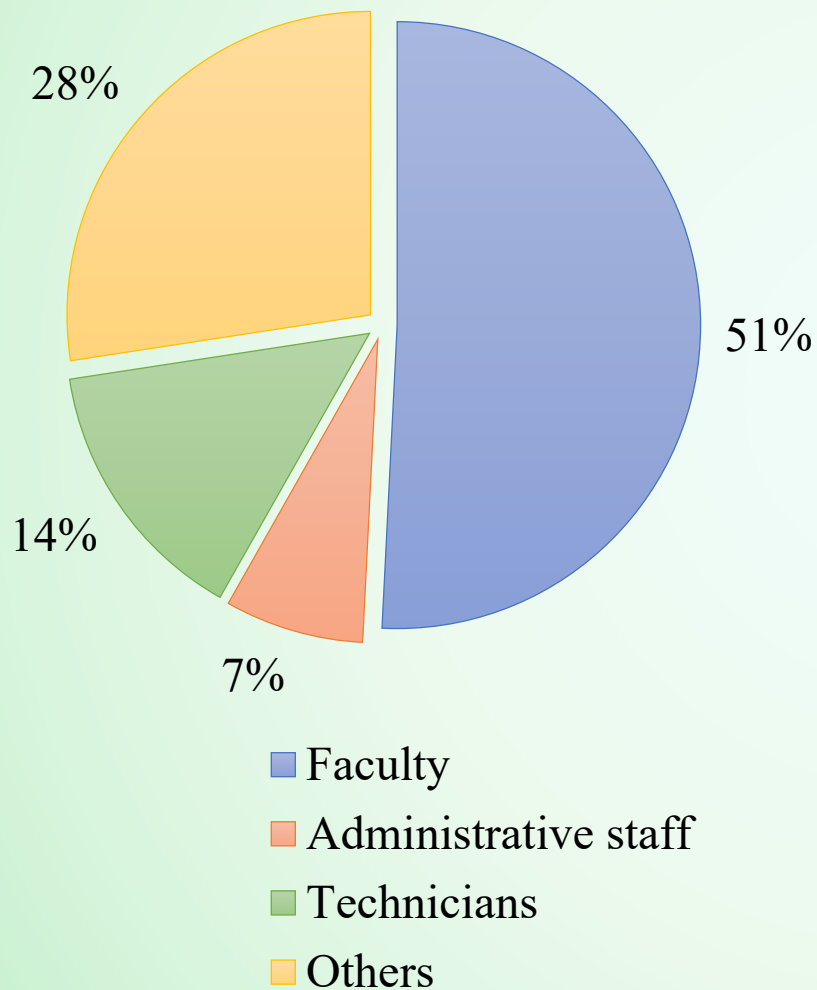
- Production prototypes - 25
- Creation of start-up and spin-off companies - 89
- License agreements – 1
- Technology transfer - 15

- Production output - 13
- Small scale, serial production - 5

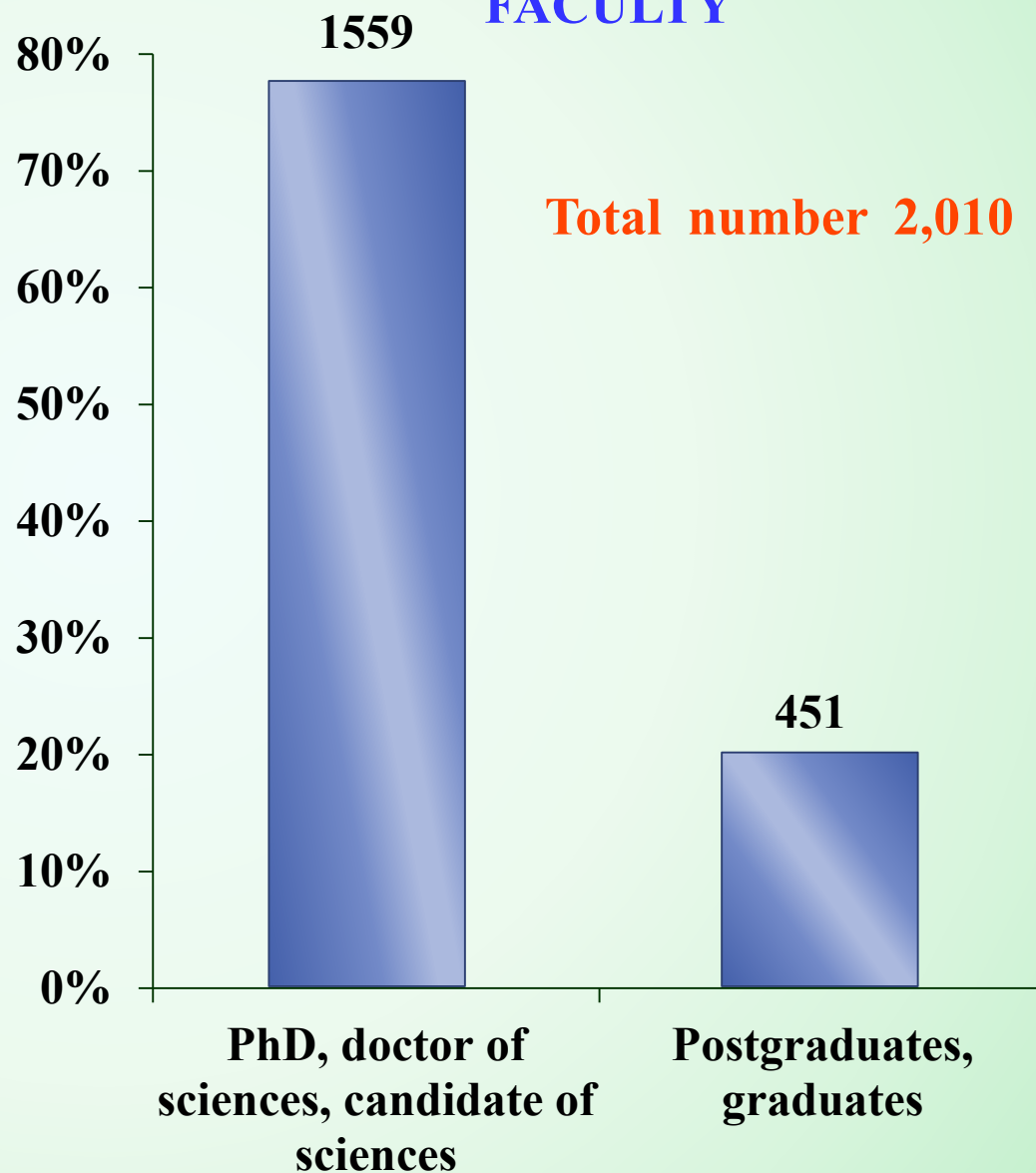


Contingent Staff Summary

Employees



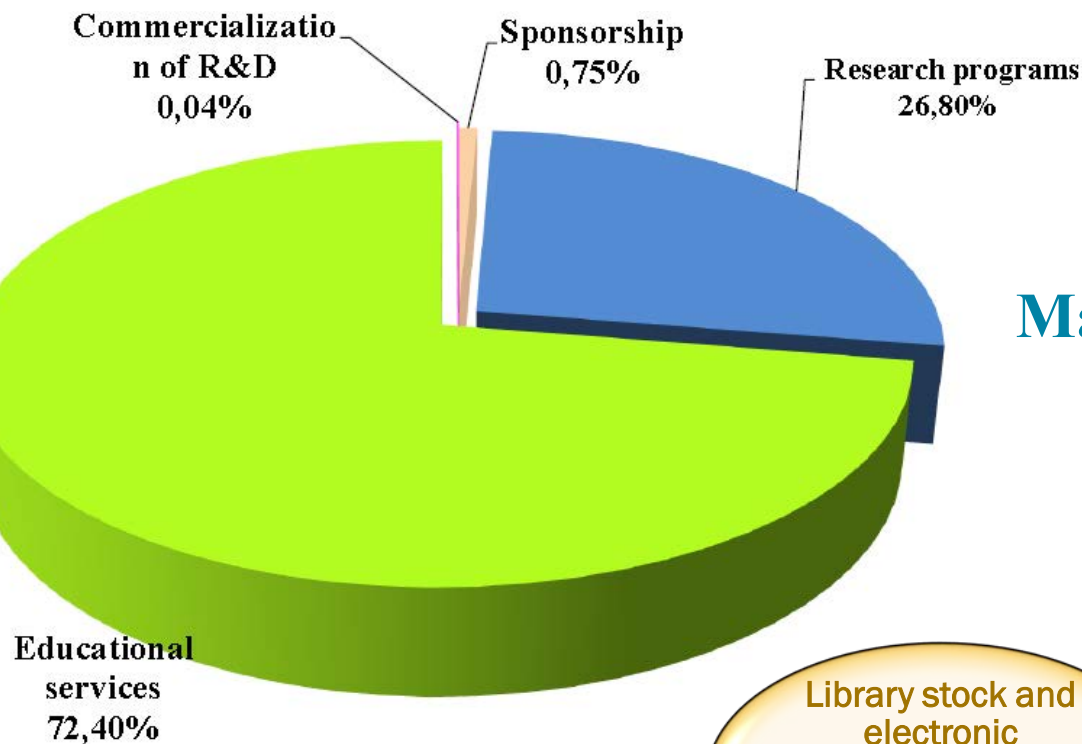
FACULTY



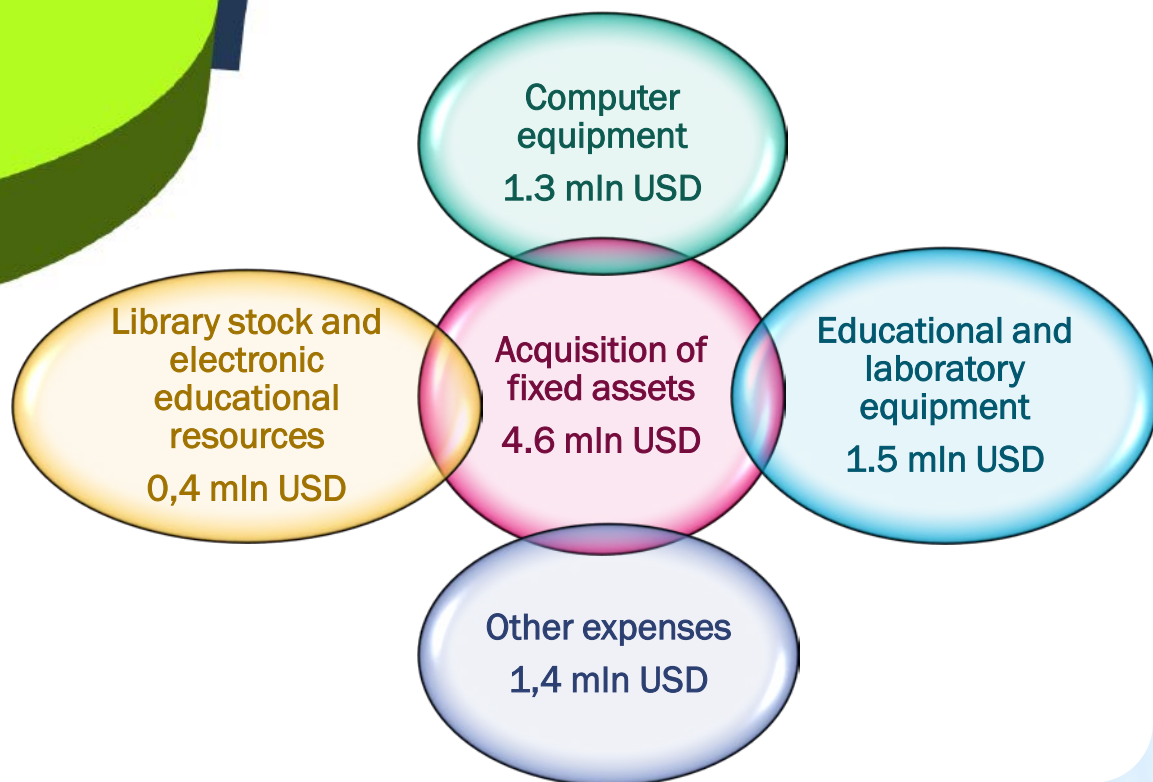


Financial and economic performance indicators

The proportion of university income for 2016

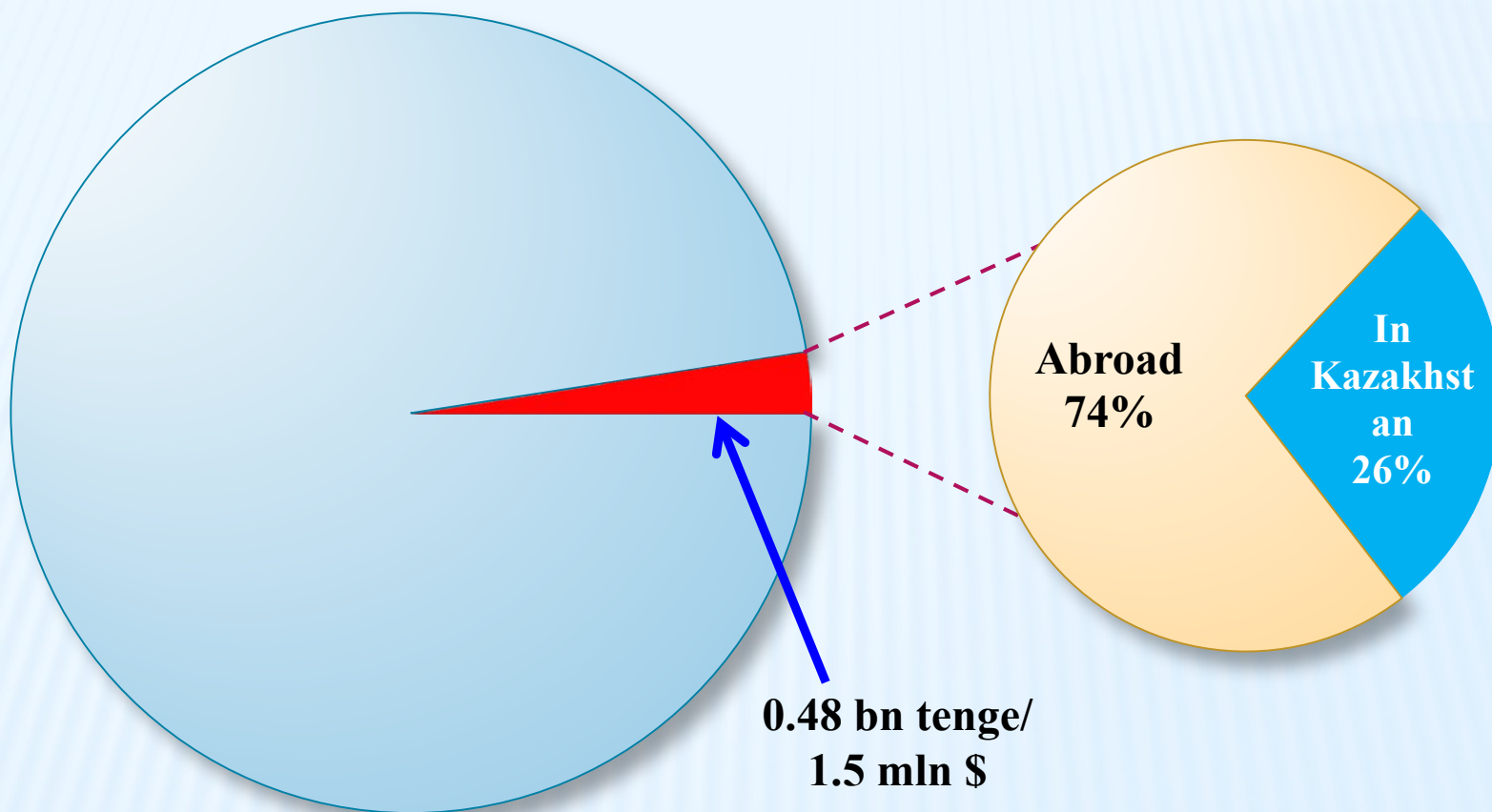


Material and technical base





Capacity building activities



■ Budget of research activity ■ Capacity building activities



The opening of the center of Green Technologies

June 6, 2017





«Green Technologies» Zone



«MINI-EXPO» for implementation of innovation projects on “Green energy”, training of specialists of new formation GPIIR on the basis of modern technologies for obtaining energy: **wind, solar, hydro- and geothermal, biogas and hydrogen energy**



«Plant factory»



Technology for biogas producing



Geothermal energy



Wind energy



Solar energy



Hydro energy



Opening of the Plant Factory laboratory for microclonal reproduction in the framework of Al-Farabi KazNU and the University of Dankook

Joint implementation of research and technology transfer on:

- industrial cultivation of commercial varieties of fruits, berries and flower-decorative crops to meet consumer demand;
- obtaining and mass replication of elite virus-free planting stock for nurseries and seed farm.



IT-technopark of “Alliance of Universities of the New Silk Road” - the point of development of the IT industry of the country on the basis of interaction of participants of the International Alliance of Universities of the New Silk Road, leading high-tech world companies, business incubators and start-up companies

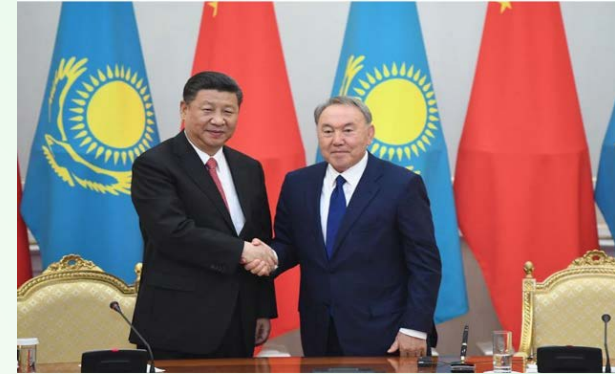
The core of the IT-technopark is a supercomputer, included in **the top 500 on the computing power**



**Cultivation of the new industry
using digital technologies**

**IT Hub for the city (storage,
processing, transmission of large
amounts of data)**

**IT infrastructure for education,
health, social institutions, start-
up and spin-off companies**



The supercomputer received at the initiative of President as a government grant of the People's Republic of China will act as the computing core of the IT-technopark

**Cost: \$ 10 million - a grant from the PRC.
\$ 5 million - additional funds**

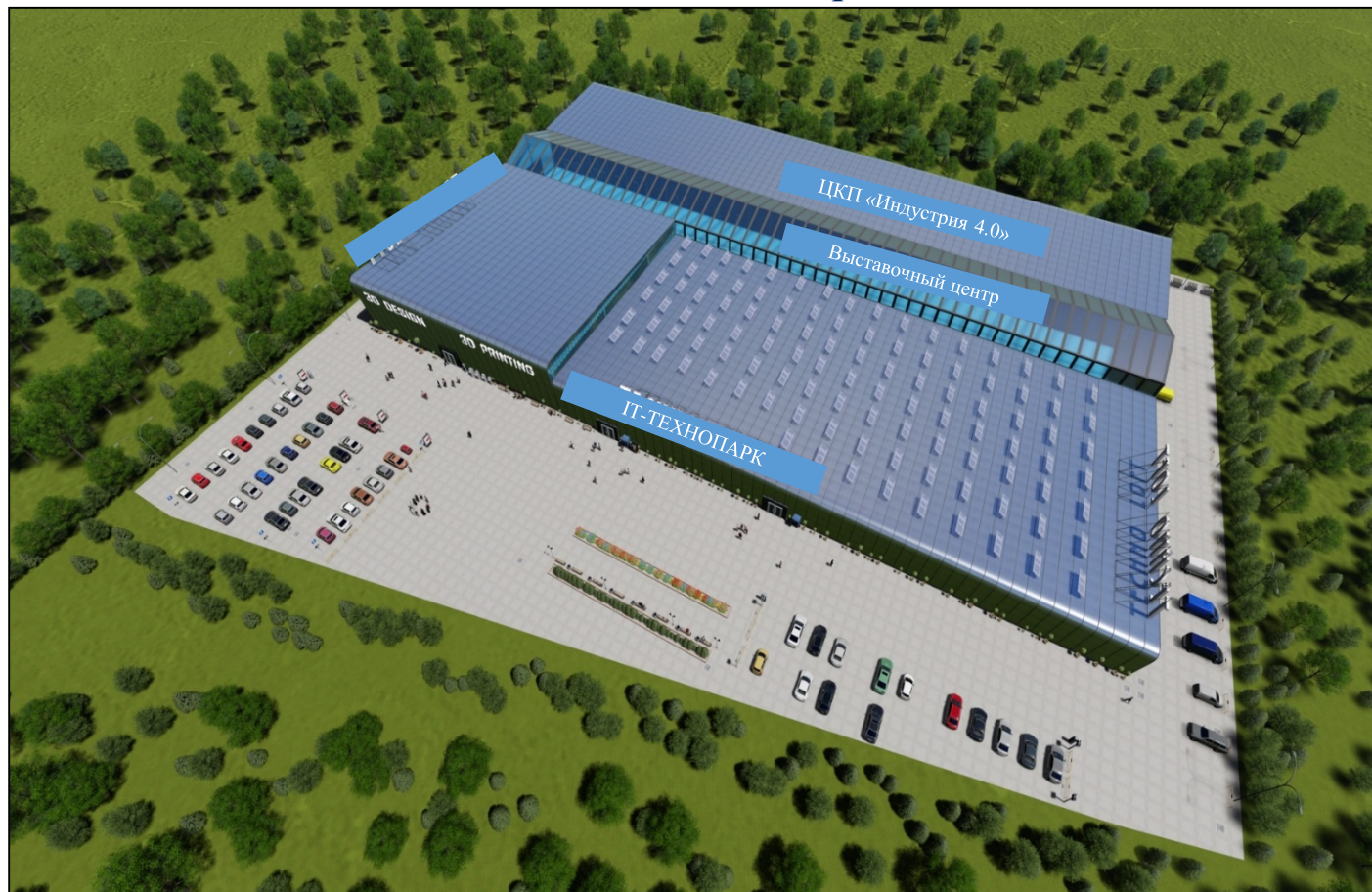
Rmax=1 200 Tflops





Zone of high technologies by “Silicon Valley” model

TOTAL AREA OF THE BUILDING 14 038 sq.m.



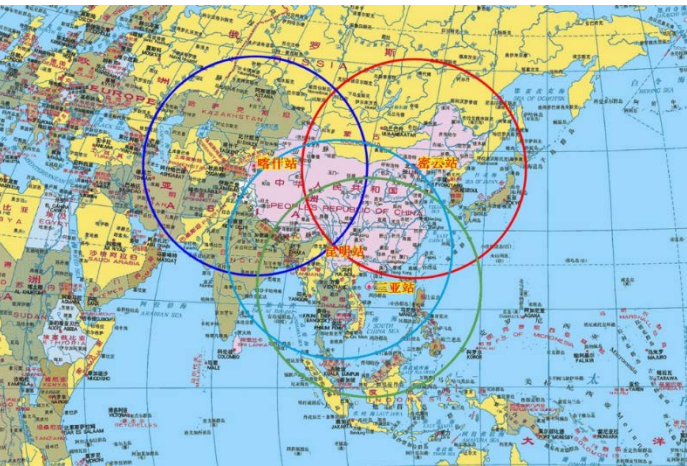
- ❑ DATA PROCESSING CENTER, SUPERCOMPUTER (1 200 Tflops)
- ❑ CENTERS FOR COLLECTIVE USE «Industry 4.0» 3 600 sq.m.
- ❑ OFFICES AND LABORATORIES 3 400 sq.m.
- ❑ EXHIBITION COMPLEX 2 700 sq.m.
- ❑ COWORKING 1 000 sq.m.
- ❑ OBJECTS OF SOCIAL IMPORTANCE 300 sq.m.



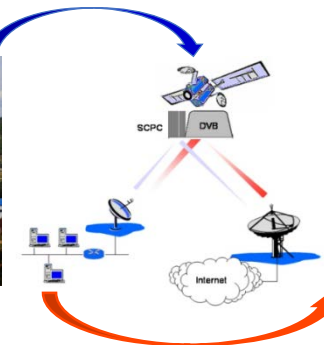
130 universities of the world included in the Alliance of Universities of the New Silk Road and the Russian Innovation Center “Skolkovo” supported the implementation of the project on creation of IT technology park

The Center for Remote Sensing was opened at A-Farabi KazNU together with the Institute of Remote Sensing and Digital Earth of the China Academy of Sciences

Al-Farabi KazNU-Farabi and the Institute of Remote Sensing and Digital Earth of the Academy of Sciences of the PRC signed an agreement on the establishment of the China-Kazakhstan Joint Research Center for Remote Sensing and its application for sustainable development of the environment in Central Asia and Kazakhstan



Receiving station in Kashi



Virtual station of KazNU

KazNU virtual ground station will receive remote sensing data from the following satellites: Chinese HJ-1A, HJ-1B, GF and USA Landsat8

- Study of environment and natural disasters based on remote sensing data received by RADI, CAS;
- Carrying out geological studies, mapping, aerial and satellite surveys, spectrometry, obtaining hyperspectral images, etc.;
- Dissemination of research within the framework SCO scientific base and other international relations, implementation of joint innovation projects;
- Solution of scientific, applied, technological, analytical and educational tasks for the creation of digital Kazakhstan.



Creation of national research school for development of space technologies

Within the framework of the “UNIFORM” joint international project of Al-Farabi KazNU with the University of Tokyo



- 2010 Beginning of training bachelors in Space Technologies
- 2012 Signing of the Agreement with the University of Tokyo on internship of Al-Farabi KazNU students on the UNIFORM program
- 2013 Beginning of internship of graduate students of Al-Farabi KazNU at the University of Tokyo.
- 2013 Admission of the first two doctoral students in Space Technologies
- 2014 Graduation of the first bachelors and masters in Space Technologies

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FLOCK 3P-14
1 42012U 170088S 17183.56916279 .00001174 00000-0 53405-4 0 9994
2 42012 97.4950 244.9508 0008465 153.6060 206.5609 15.22698821 20678
FLOCK 3P-53
1 42013U 170088T 17183.57248050 .00001283 00000-0 58123-4 0 9994
2 42013 97.4942 244.9345 0008470 152.3658 207.8030 15.22665620 20677
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2 42015 97.4941 244.8268 0007379 154.4084 205.7519 15.22863744 20669
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1 42016U 170088W 17183.54727508 .00001522 00000-0 67739-4 0 9993
2 42016 97.4943 244.9718 0007315 154.4216 205.7383 15.23002274 20809
NAVIF-1 (EO-88)
1 42017U 170088X 17183.61170728 .00001534 00000-0 68228-4 0 9995
2 42017 97.4943 245.0383 0007279 154.4511 205.7087 15.23018191 20836
FLOCK 3P-23
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2 42018 97.4942 244.7996 0010418 131.0863 229.1274 15.22432306 19644
FLOCK 3P-76
1 42019U 170088Z 17183.60305148 .00002014 00000-0 89626-4 0 9991
2 42019 97.4976 244.9606 0009839 135.9414 224.2607 15.22609696 20716
  
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Celestrak.com, TLE database, cubesat list, USA

Your satellite tracking list

Add AL-FARABI 1 on your tracking list

Your tracking list is empty

- Nano-satellites Al-Farabi-1 and Al-Farabi-2 designed and assembled
- Software for telecommunications module of CMX series of CML was developed with GMSK modulation for necessary tasks of the nanosatellite
- Tripartite memorandum between Al-Farabi KazNU, Kosmotras and Sputniks and Contract for launch services of Sputniks were signed
- On February 15, 2017, the first Kazakh nanosatellite "Al-Farabi-1" was launched from the Indian cosmodrome on the Polar Satellite Launch Vehicle (PSLV)
- The launch of the nanosatellite Al-Farabi-2 is scheduled for May 2018



NEXT PASS OF AL-FARABI 1 OVER YOUR CURRENT LOCATION					
START AZIMUTH		MAX ELEVATION		END AZIMUTH	
Jul 3 22:02	171° S	22:07	73°	22:13	346° N
				TOTAL DURATION	
				11m 15s	



On-going programmes



Projects and funding

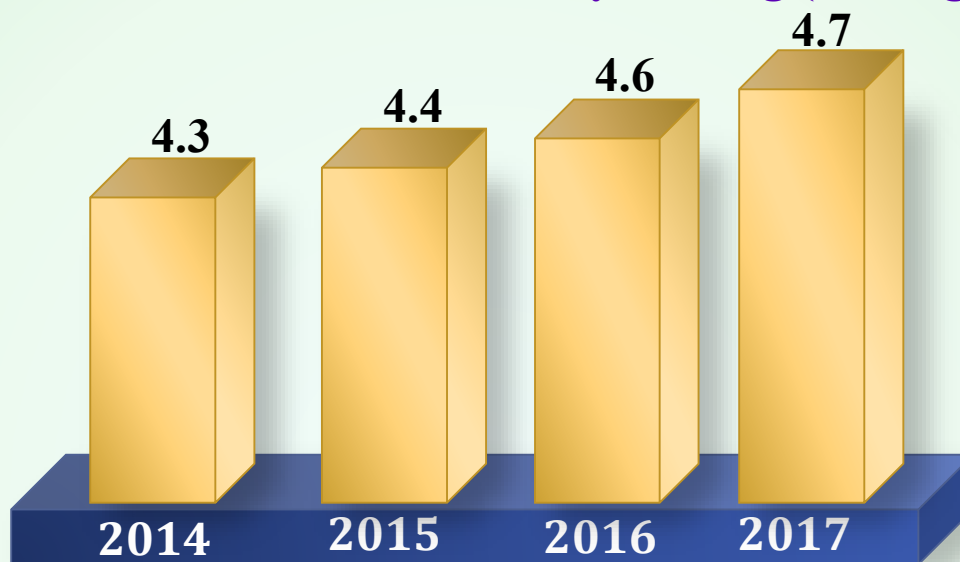
In 2017 the scientists of the University implemented 574 projects with total funding of 4.67 bn tenge (14.5 mln. USD), including:

- **247** projects of grant funding of Ministry of Education and Science of the Republic of Kazakhstan for 2015-2017;
- **6** projects of program-targeted funding of Ministry of Education and Science of the Republic of Kazakhstan on DRIA of Al-Farabi KazNU;
- **128** research works within the framework of business agreements with organizations and enterprises;
- **193** grants of international funds and organizations.

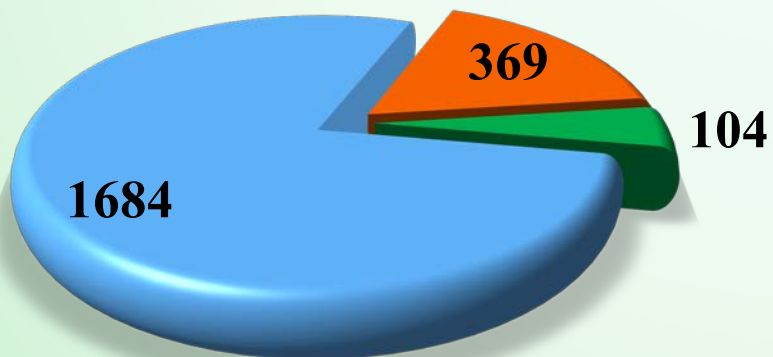


Research activity

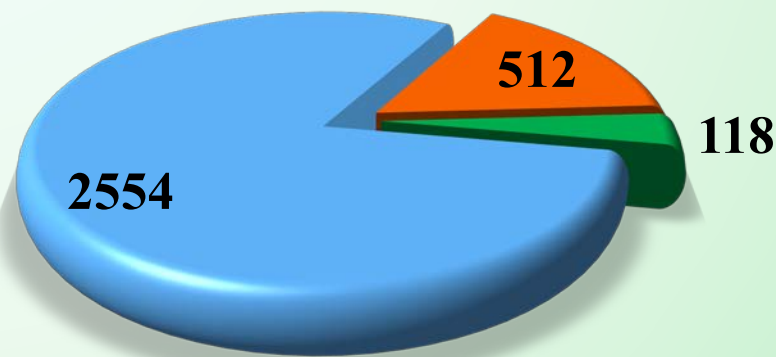
The amount of research activity funding (bn tenge)



Publications in high-ranked journals of Clarivate analytics in 2017



Publications in high-ranked journals of Scopus in 2017



■ Kazakhstan ■ KazNU ■ Satellite institutes

■ Kazakhstan ■ KazNU ■ Satellite institutes



Publications in high-ranking journals

SJR=13.535

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   0

Ancient genomes revisit the ancestry of domestic and Przewalski's horses

Charleen Gauntitz^{1,*}, Antoine Fages^{1,2,*}, Kristian Hanghøj^{1,2}, Anders Albrechtsen³, Naveed Khan^{1,4}, Mikkel Schubert¹, Andaine Seguin-Orlando^{1,2,5}, Ivy J. Owens^{6,7}, Sabine Felkel⁸, Olivier Bignon⁹, Azadeh F. Mohaseb^{11,12}, Hossein Davoudi^{12,13,14}, Saleh Alquraishi¹, Crubézy², Norbert Benecke¹⁶, Sandra Olsen¹⁷, Dorcas Brown¹⁸, David Kasparov²⁰, Gottfried Brem⁸, Michael Hofreiter²¹, Gulmira Mukhtar Onar²⁵, Philipp W. Stockhammer^{10,19}, Johannes Krause¹⁰, Bazartse Erdenebaatar²⁷, Sébastien Lepetz¹¹, Marjan Mashkour^{11,12,13}, Arne Viktor Zaibert³⁰, Eske Willerslev¹, Pablo Librado¹, Alan K. Outram⁶

nature
International journal of science

  Altmetric: 83 Citations: 1 [More detail >>](#)

SJR=18.032

Letter

Blazar spectral variability as explained by a twisted inhomogeneous jet

C. M. Raiteri , M. Villata , J. A. Acosta-Pulido, I. Agudo, A. A. Arkharov, R. Bachev, G. V. Baida, E. Benítez, G. A. Borman, W. Boschin, V. Bozhilov, M. S. Butuzova, P. Calcidese, M. I. Carnerero, D. Carosati, C. Casadio, N. Castro-Segura, W.-P. Chen, G. Damjanovic, F. D'Ammando, A. Di Paola, J. Echevarría, N. V. Efimova, Sh. A. Ehgamberdiev, C. Espinosa, A. Fuentes, A. Giunta, J. L. Gómez, T. S. Grishina, M. A. Gurwell, D. Hiriart, H. Jermak, B. Jordan, S. G. Jorstad, M. Joshi, E. N. Kopatskaya, K. Kuratov, O. M. Kurtanidze, S. O. Kurtanidze, A. Lähteenmäki, V. M. Larionov, E. G. Larionova, L. V.

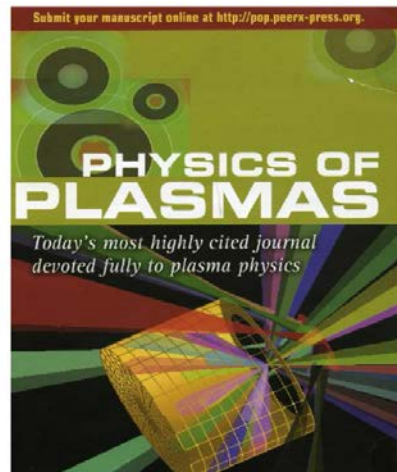


Clarivate Analytics Awards



«Top Organization Springer Nature»

Nomination «The Most Published Organization»



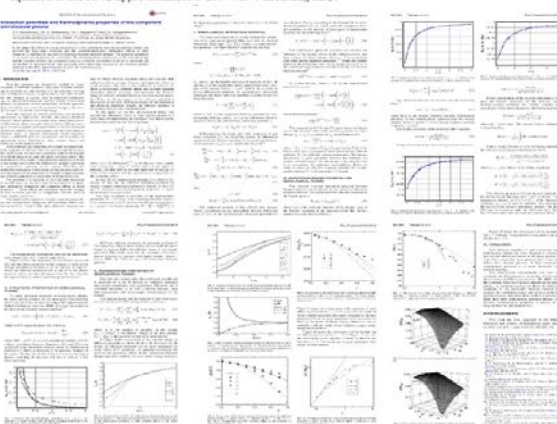
Interaction potentials and thermodynamic properties of two component semiclassical plasma

T. S. Ramazanov,¹ Zh. A. Moidabekov,¹ M. T. Qabodulin,² and T. N. Ismagambetova¹

¹Al-Farabi Kazakh National University, HTP, 71 of Farabi Av., Almaty 050040, Kazakhstan
²Al-Farabi Kazakh National University, NNLOT, 71 of Farabi Av., Almaty 050040, Kazakhstan

(Received 16 October 2013; accepted 5 January 2014; published online 21 January 2014)

In this paper, the effective interaction potential in two component semiclassical plasma, taking into account the long-range screening and the quantum-mechanical diffraction effects at short distances, is obtained on the basis of dielectric response function method. The structural properties of the semiclassical plasma are considered. The thermodynamic characteristics (the internal energy and the equation of state) are calculated using two methods: the method of effective potentials and the method of micro-potentials with screening effect taken into account by the Ornstein-Zernike equation in the HNC approximation. © 2014 AIP Publishing LLC.



«Leader of Science -2017»

In nomination
«Author is highly cited
Kazakhstan publication
prepared without participation
of foreign co-authors»



IV International Farabi readings

April 4-21, 2017

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

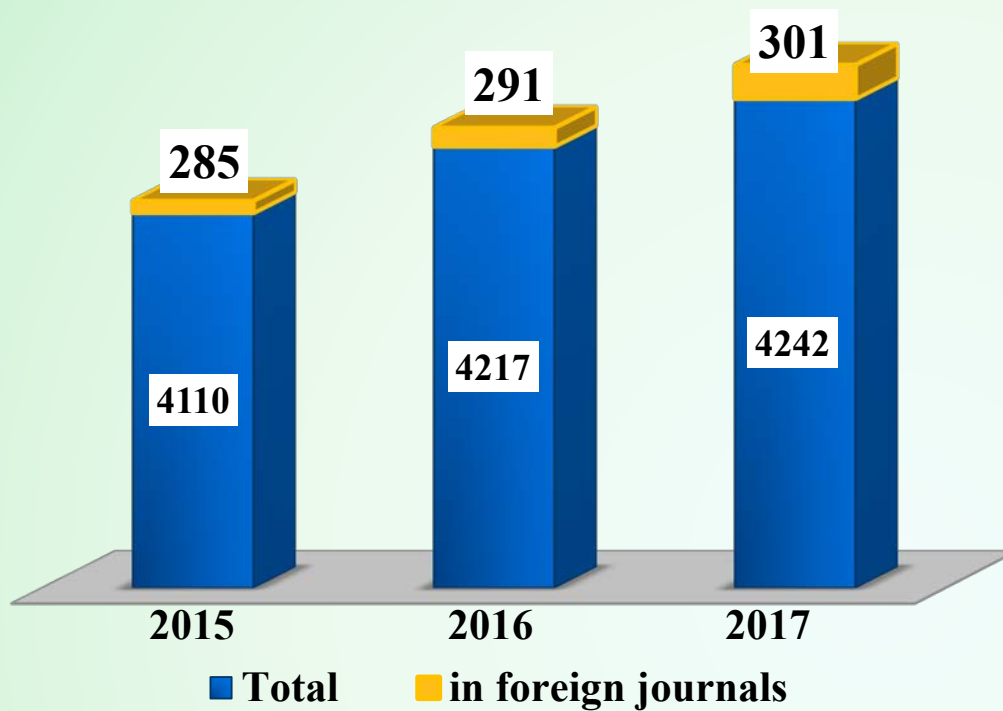


7 international conferences, 3 round tables, International Student Forum «Green Bridge across generations» and International scientific conference of students and young scientists «Farabi alemi» were held on the IV International Farabi readings dedicated to the International exhibition EXPO-2017 in ASTANA





The research activity of students

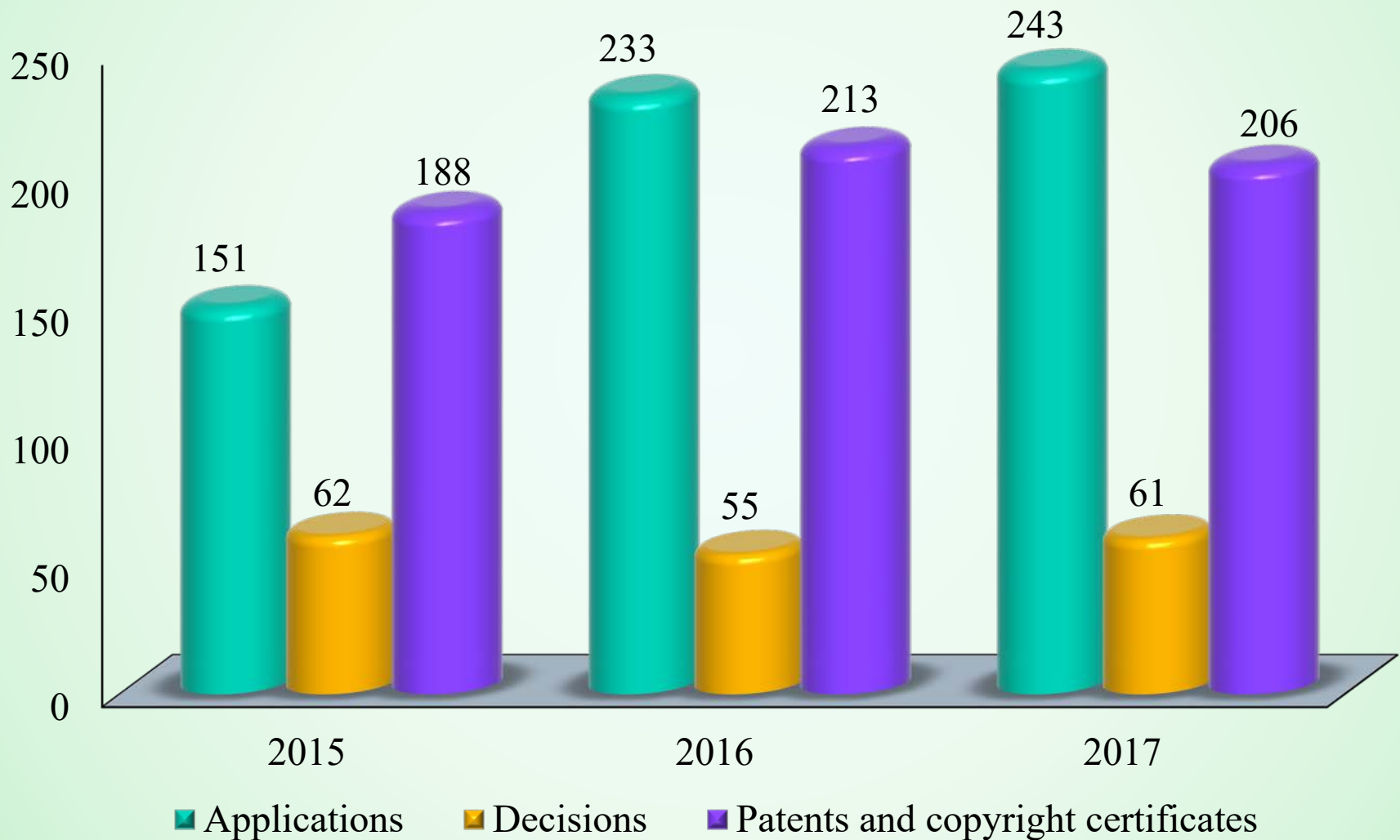


Participation of students and young scientists in work of international scientific conferences for 2015-2017



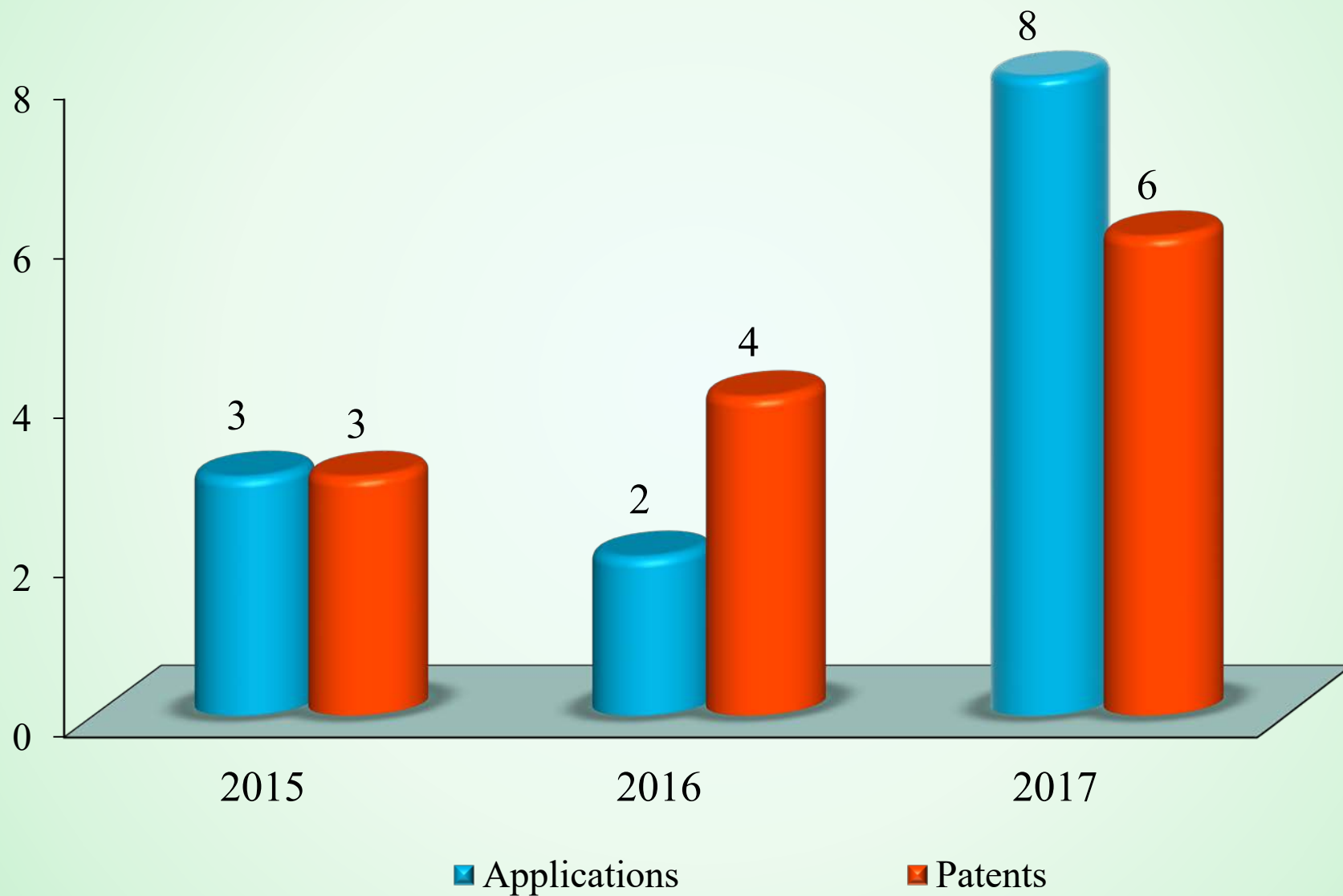


Patent-licensing activity





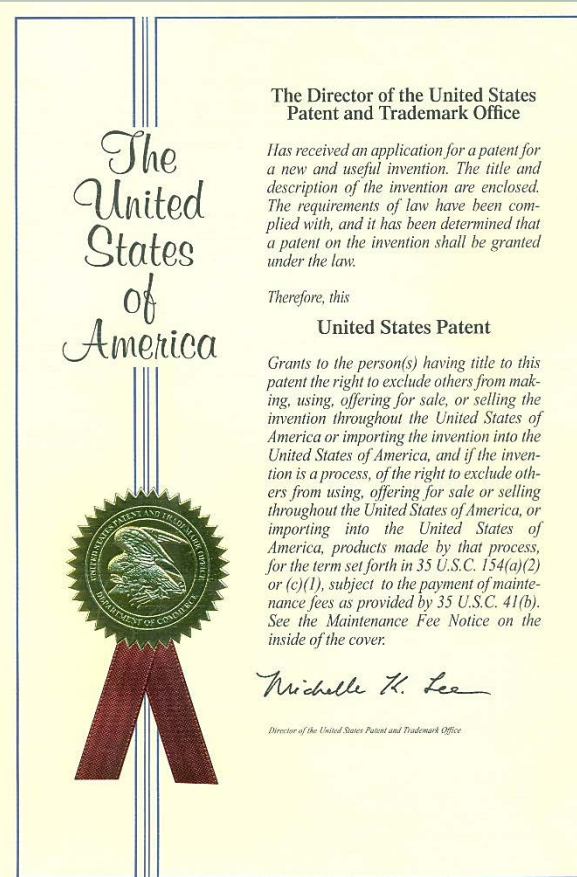
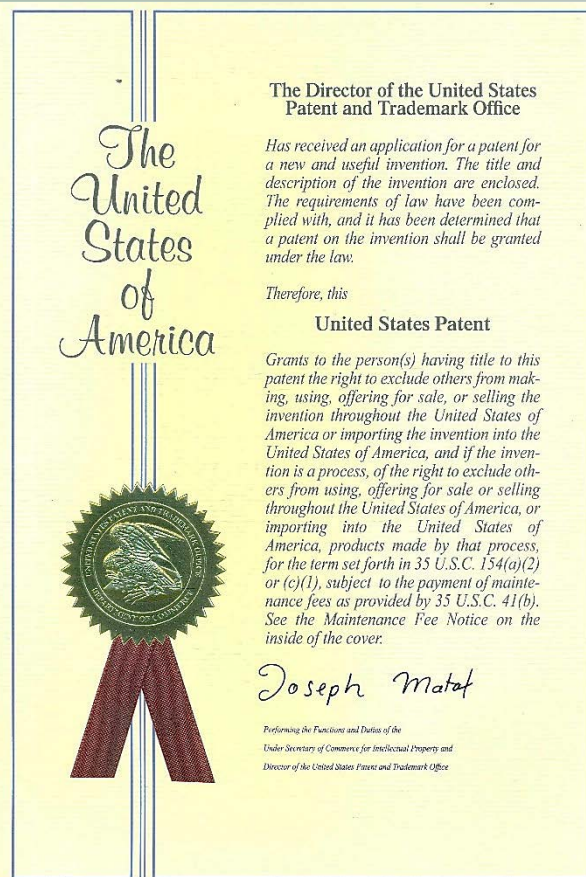
Foreign patent-licensing activity





Foreign patents

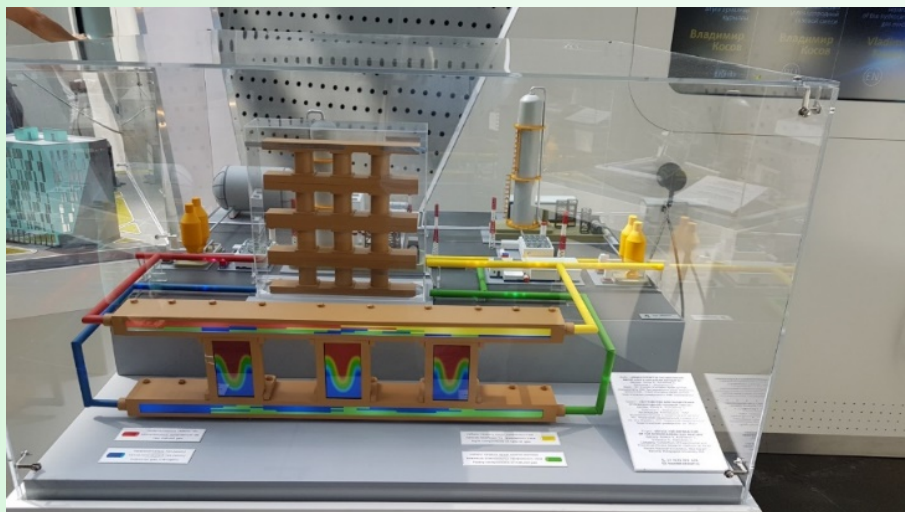
USA Patent №9834826 «Method for extracting beryllium from bertrandite and phenakite mineral groups» // Ospanov H.K., Mutanov G.M., Ospanova N.H., Baiboldieva A.B.



USA Patent №9650751 «Method and device for deepening riverbeds and their cleaning from sediments» // Salnikov V.G., Khalidullin O.Kh., Duskaev K.K.



Projects presented at the International Exhibition EXPO-2017 “Energy of Future”



**Device for separation of
hydrocarbon gas mixture
into components with specified
properties by convective diffusion**
Project manager: Kosov V.N.



**Plazmotron for increasing
energy efficiency of thermal
power plants and boilers**
Project manager: Messerle V.E.

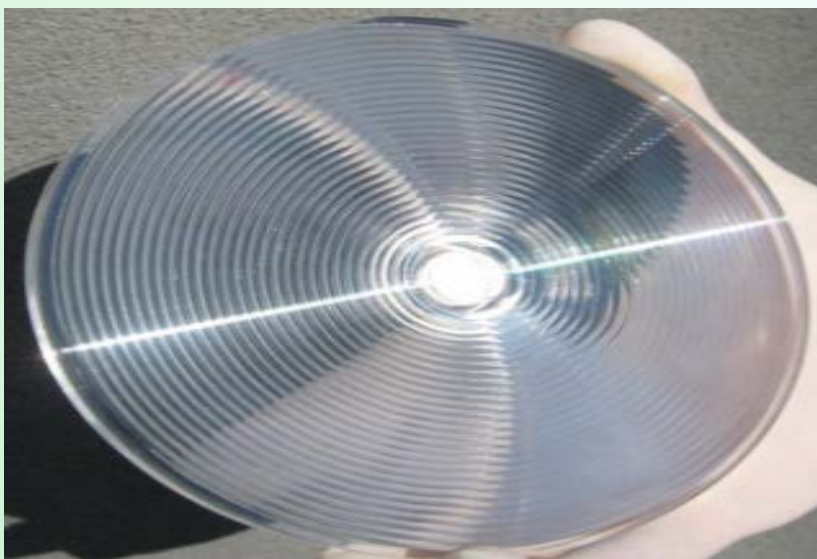


Projects presented at the International Exhibition EXPO-2017 “Energy of Future”



**Autonomous solar plant for
producing thermal and electric
energy**

Project manager: Lavrishchev O.A.



**Development of a silicon solar
battery with a planar concentrator**

Project manager: Svanbayev E.



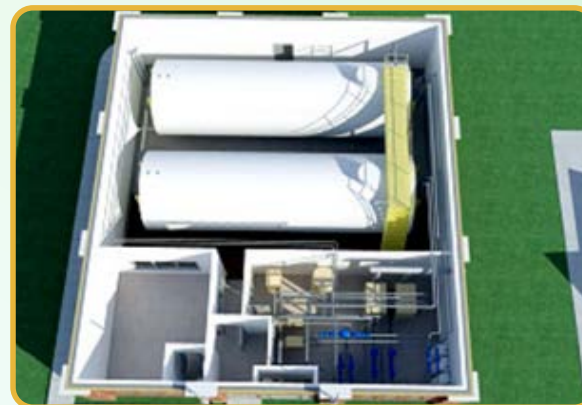
Spin-off companies under the World Bank ("Stimulation of productive innovations")



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

«BioClean», Ltd.

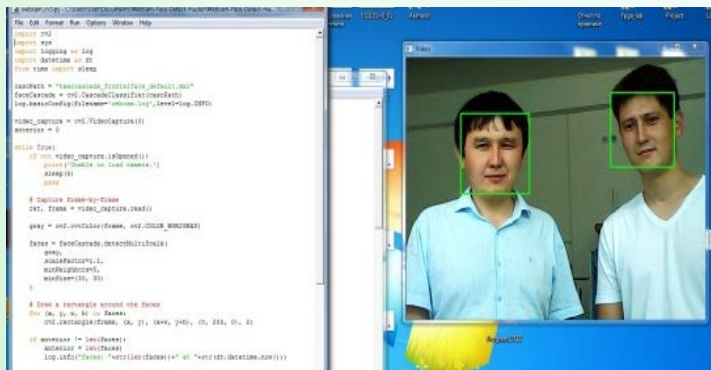
Project manager: Mukasheva T.D.



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

«GreenWell Mechanics», Ltd.

Project manager: Tungatarova M.



Machine vision based on an adaptable self-organizing neural network

«KITC», Ltd.

Project manager: Kozhagulov E.T.



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

«Innovation enterprise «Sterin», Ltd.

Project manager: Konuspaev S.R.



The World Bank Grant program for development of technology transfer/commercialization offices in Universities of RK



Список победителей конкурса по



Новая вкладка



fpip.kz/index.php/ru/press-tsentr/ob-yavleniya/806-18596798123-17



Поиск

3) доверенность на имя основного грантополучателя, подписывающего соглашение,

4) Справка с банка о наличии отдельно созданных расчетных счетов для средств гранта (счет должен быть с привязкой к эскроу-счету).

Список ВУЗов-победителей конкурса по отбору офисов трансферта/ коммерциализации технологий в университетах Республики Казахстан:

№	Наименование высшего учебного заведения
1	Al-Farabi Kazakh National University
2	Евразийский национальный университет имени Л. Гумилева
3	Казахский национальный исследовательский технический университет имен К. Сатпаева
4	Казахский национальный аграрный университет
5	Карагандинский государственный технический университет
6	Южно-Казахстанский государственный университет имени М. Ауезова
7	Казахский агротехнический университет имени С. Сейфуллина
8	Западно-Казахстанский государственный университет имени М. Утемисова
9	Восточно-Казахстанский государственный университет имени Д. Серикбаева
10	Северо-Казахстанский государственный технический университет имени М. Козыбаева

\$ 360,000



The World Bank Project “Stimulation of productive innovations”

**“Consortia of the manufacturing sector”
“Industrial and research cooperation center”**

Project manager: An E.A.



**Al-Farabi
KazNU**



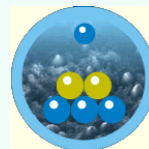
**«Kazgipro
tsvetmet»,
Ltd**



**Institute of
Ecological
Problems**



**Institute of
New Chemical
Technologies
and Materials**



**National
Nanotechnology
Open
Laboratory**



**Scientific
and
Technology
Park**



**National
University of
Science and
Technology
“MISIS”**



**D. Mendeleev
University of
Chemical
Technology of
Russia**



**“NPO
Center”,
JSC**

**Creation of the Industrial and research
cooperation center**

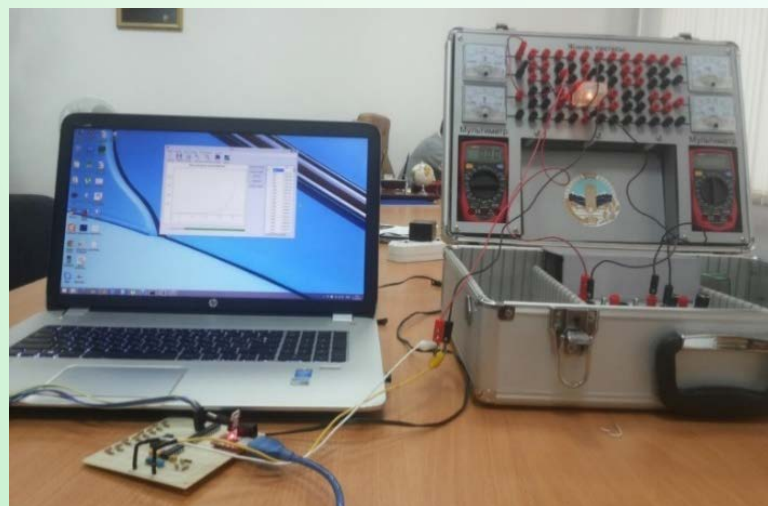


Projects of Science Fund



**Complex automation of
universities, research institutes
and implementation of digital
services**

Project manager: Mutanov G.M.

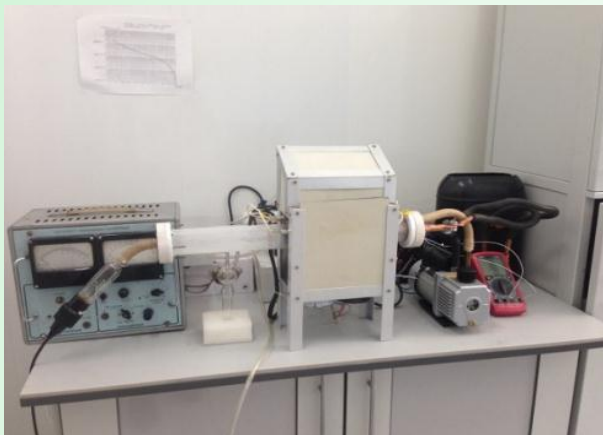


**Creation of small production of
hardware and software complexes
for studying electromagnetic
phenomena at the physics course
for secondary schools**

Project manager: Ramazanov T.S.



Projects of Science Fund



Organization of production of carbon nanostructured materials for a wide range of applications

Project manager: Gabdullin M.T.



Creation of the pilot production of polyester resins for special purposes

Project manager: Irmukhametova G.S.

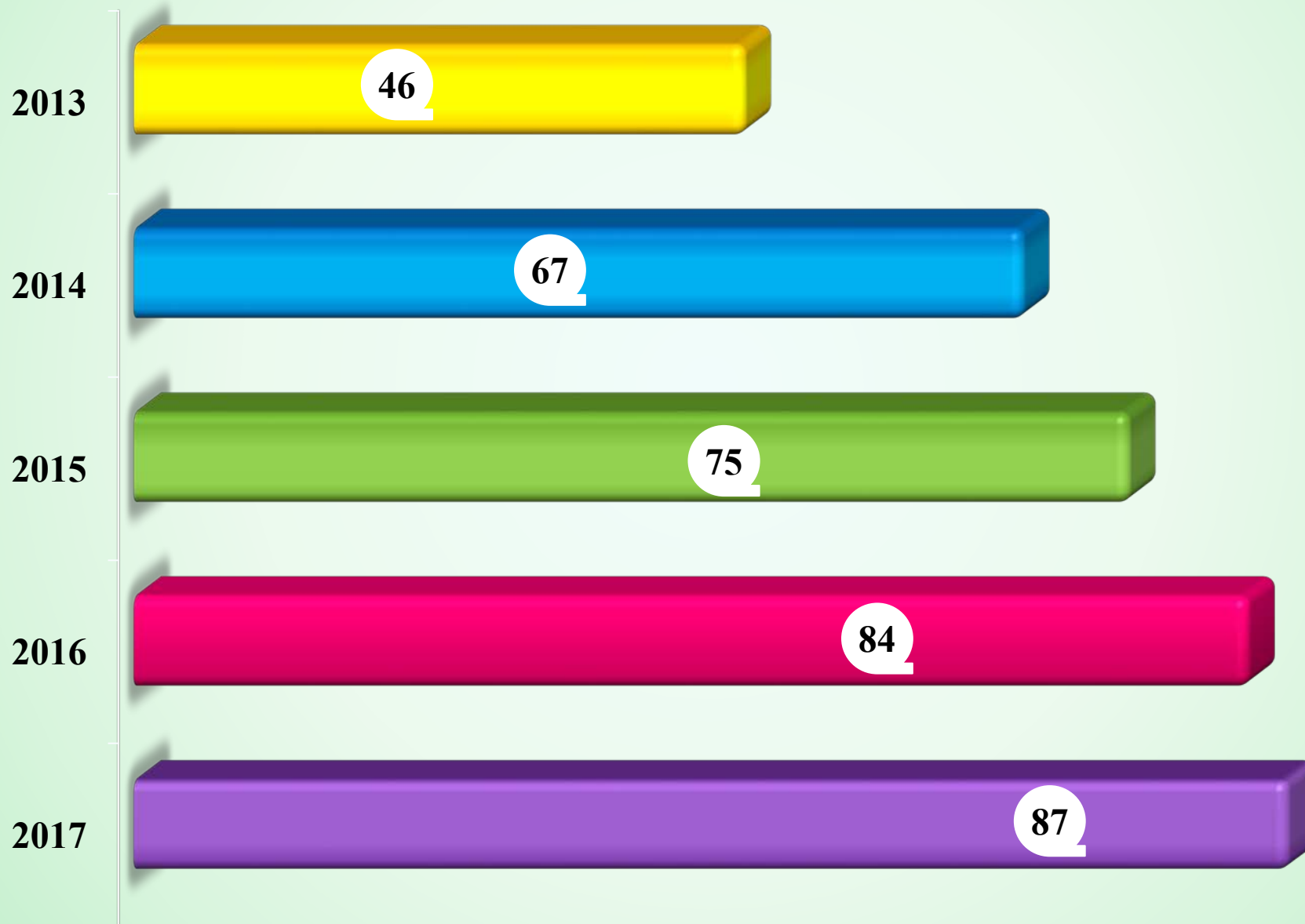


Organization of small-scale production of energy-saving gas-discharge lamps with increased intensity of luminescence on the basis of new technology

Project manager: Dosbolayev M.K.



Innovation projects of Student business incubators





The best projects of Student business incubators in 2017



Method of resonance wave electron energy transfer



Wi-Fi Presentations



The technology of electrochemical purification of the indium using bismuth as a depressant additive



«Linguorubik»



Autonomous watering of plants



«Turan Ulilari»



Unemdi jaryk kozi



Mobile Forensic Technologies



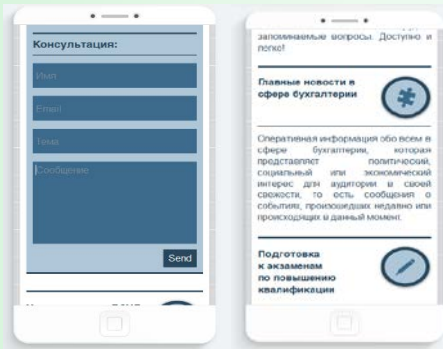
Student Start-up companies



Snail *Achatina fulica* as a domestic pet providing mucin



«Media-house»



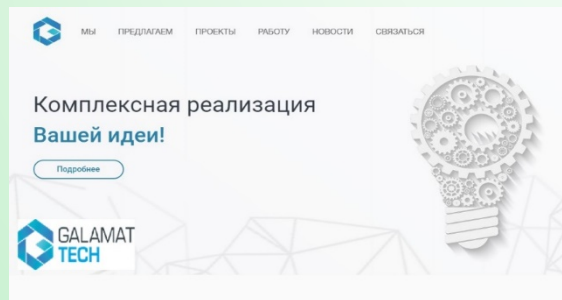
«Coolkeepers»



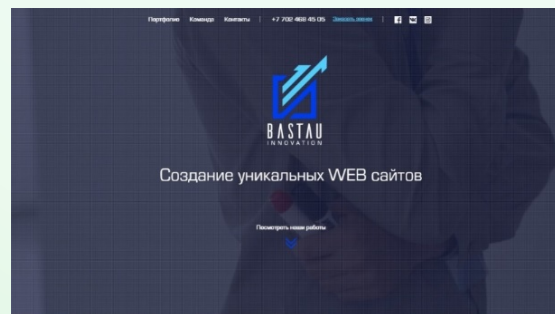
«Consulting Far East»



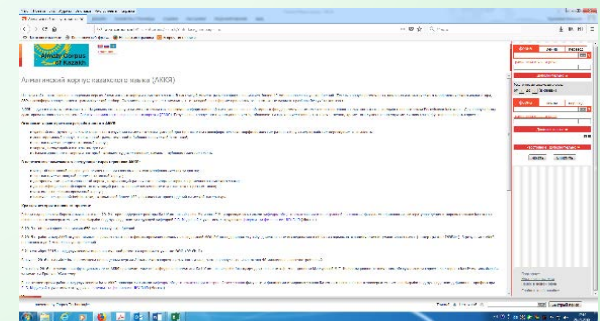
«On time»



«Context Galamat»



«Bastau Innovation»



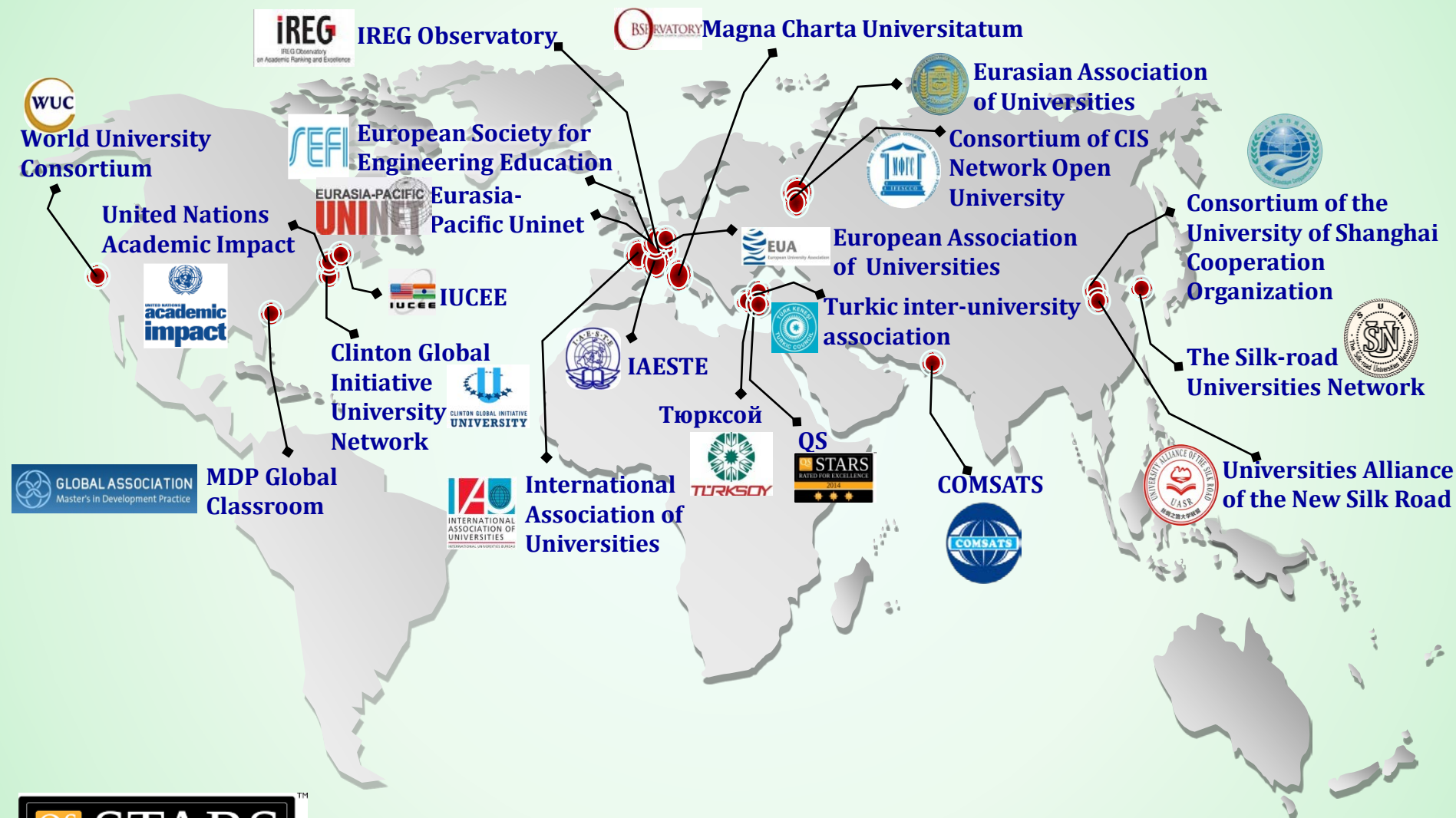
«Taza Life»»



International collaborations



Membership in international organizations

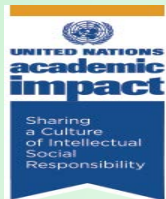


QS World University Rankings (2017) 236

QS Emerging Europe and Central Asia Ranking (2017) 10



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 joined 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)

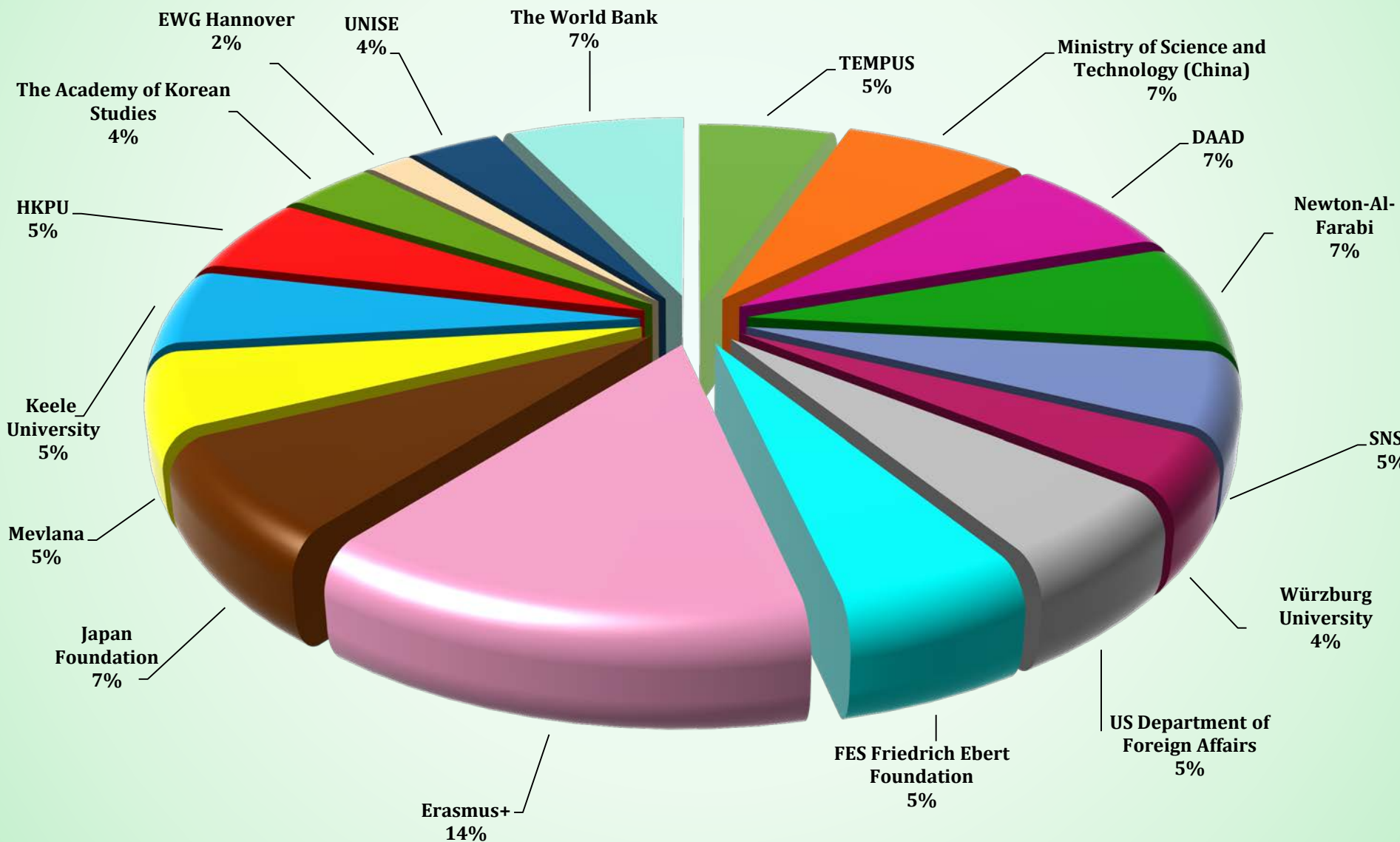


World Academy of Art and Science (WAAS)
Rector G.Mutanov is elected a member of WAAS

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.

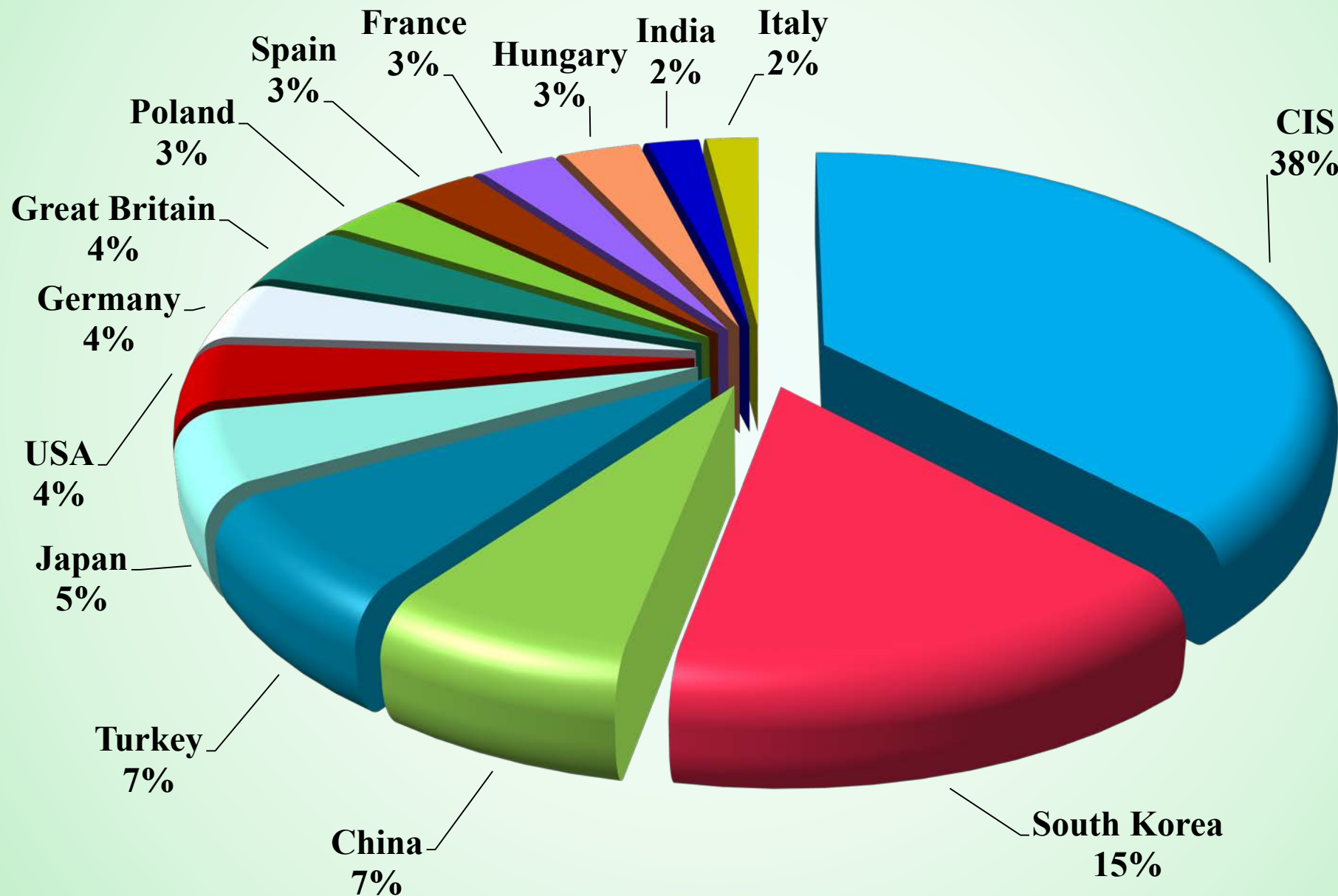


International funds and organizations financing university projects





Partner organizations by countries





Participation in COMSATS' programmes



Joint projects of Al-Farabi KazNU and COMSATS

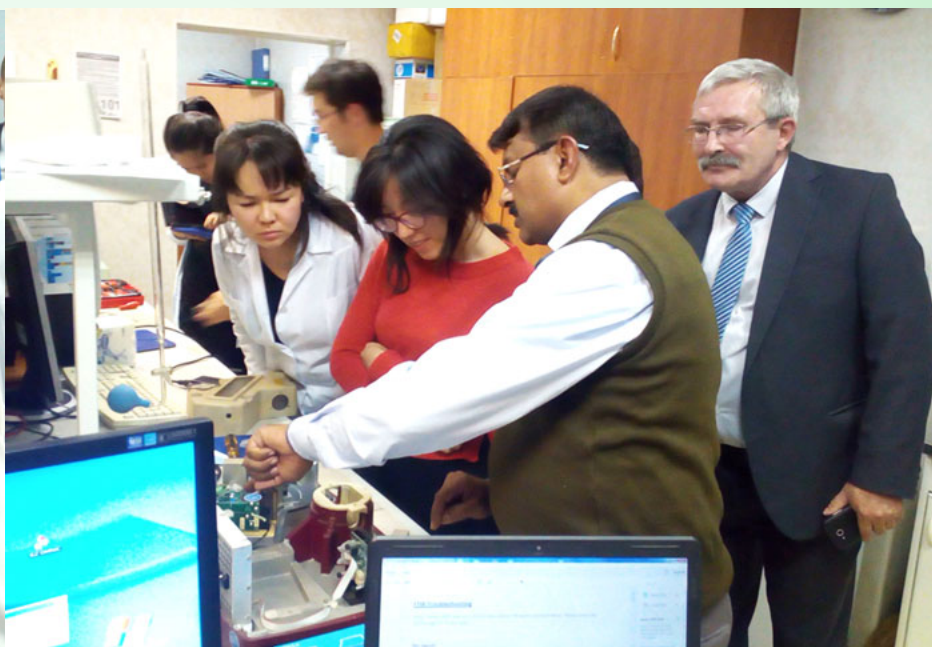
10th ISESCO-COMSATS-KazNU National Workshop under ISESCO-COMSATS biennium Cooperation Programme in Almaty, Kazakhstan (October 02-06, 2017)

Workshop title: 'Repair and Maintenance of Scientific, Engineering Equipment in Universities, Research Institutions and Small Scale Industries'.

The aim of the series of workshops is to build indigenous capacity of the local scientists and institutions in the developing countries and promoting self-reliance for upkeep of scientific equipment being used in research Labs. More than 60 participants including senior scientists, engineers and technicians from various research institutions and universities of Almaty, and other cities of Kazakhstan, benefited from the training provided by the COMSATS' international experts.



Joint projects of Al-Farabi KazNU and COMSATS





Joint projects of Al-Farabi KazNU and COMSATS

7th International Workshop “Internet Security: Enhancing Information Exchange Safeguards”

Workshop date: December 19-23, 2017

The event was jointly organized by Commission on Science and Technology for Sustainable Development in the South (COMSATS); Islamic Educational, Scientific and Cultural Organization (ISESCO); and the Inter Islamic Network on Information Technology (INIT), and was hosted by the Al-Farabi Kazakh National University (KazNU), Kazakhstan.

The technical sessions of the five-day workshop were attended by 40 young researchers, academicians, system administrators and cyber security professionals.





Joint projects of Al-Farabi KazNU and COMSATS

7th International Workshop “Internet Security: Enhancing Information Exchange Safeguards” (December 19-23, 2017)

The event provided a forum to the participating researchers and professionals to learn about the latest advancements in the field of Internet security; use the state-of-the-art technologies for protection of network and network accessible resources from different types of software attacks; and working out effective Internet/information security solutions for general public, governmental organizations, and commercial enterprises through rigorous risk analysis and security management approaches.





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



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

“Developing the Capacities of Al-Farabi Kazakh National University, Kazakhstan in Phytochemical Development”

The leaders of the joint research center::

- **Professor Muhammad Iqbal Chaudhary** is Director of the International Center for Chemical and Biological Sciences of the University of Karachi.
- **Professor Zharylkasyn Abilov** (Department of Chemical Technology of Organic Substances, Natural Compounds and Polymers of Al-Farabi KazNU).



Future plans



Goals of Al-Farabi KazNU until 2019

- **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%**
- **Commercialization of 8 R&D results and obtaining 5 patents of the USA, the countries of Europe and the Asian-Pacific region**
- **Creation of 15 innovation “Start-up companies”, and 8 small innovative enterprises with the participation of the University**



Submission of 4 journals applications for inclusion in the international Scopus database and other databases in 2018

CHEMICAL BULLETIN
OF KAZAKH NATIONAL UNIVERSITY

Current Archives About ▾

Home / Archives / No 4 (2017): (In Progress)

DOI: <https://doi.org/10.15328/cb201714>

Published: 2017-12-27

Physical Chemistry and Electrochemistry

Synthesis of molybdenum and tungsten modified composite systems based on bisorbent from rice husk

Duisek Haisagalievich Kamysbaev, Bazarbai Alibayevich Serikbaev, Galina Sergeevna Arbuz

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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)**

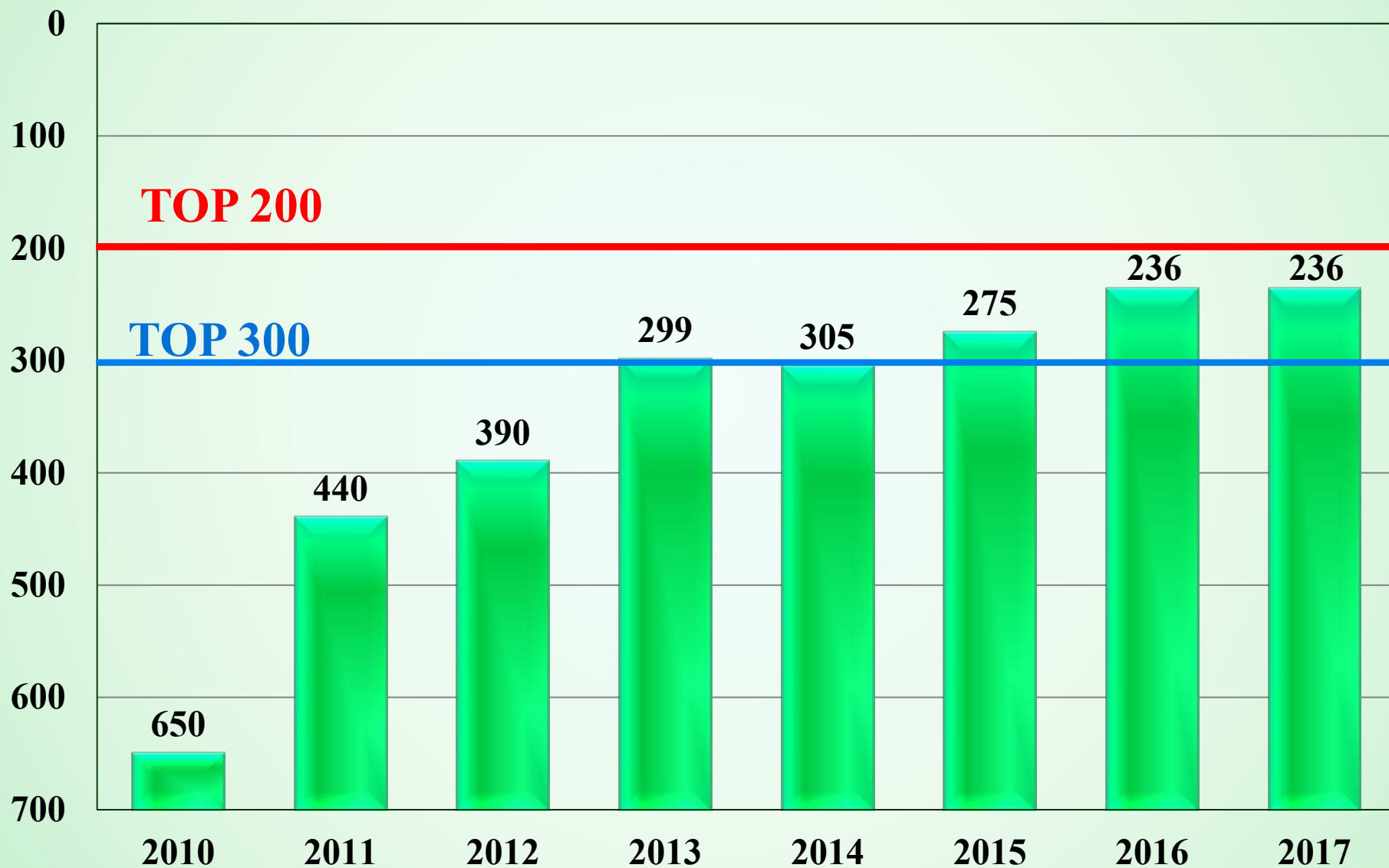
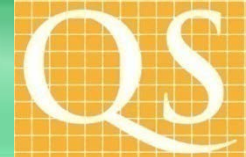


**National Research
Centre (NRC) Egypt**

and also we are glad to welcome other organizations



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





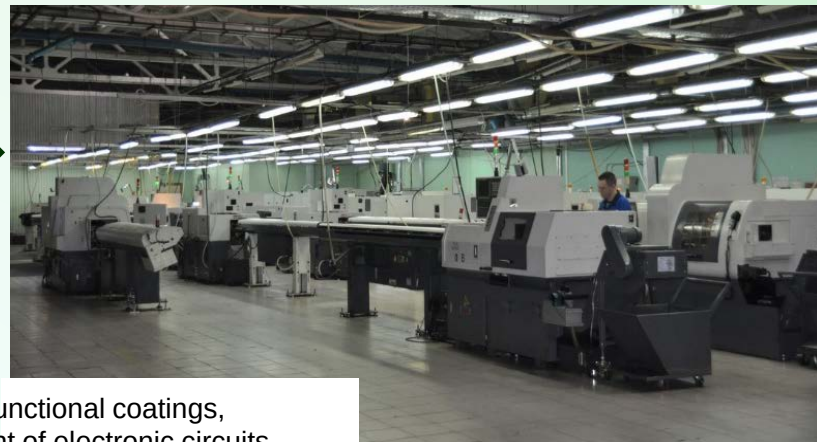
Thank you for attention!



CENTERS FOR COLLECTIVE USE «Industry 4.0»



CONTRACT RESEARCH
AND DEVELOPMENT



PROTOTYPING

Industrial design, 3D prototyping, functional coatings, computer engineering, development of electronic circuits, precise machining



ENGINEERING DEVELOPMENT

Creation of prototypes, patenting, certification of products, technical design



PRODUCTION

Small series, CNC machines, assembly and welding sites, electronics and soldering development site

Collaboration: the Hong Kong Polytechnic University, «DMG Mori»

- **Development of technological solutions and original technologies**
- **Issue of laboratory samples and small-size production on the order of industrial enterprises**
- **Creation of prototypes of high-tech products with access to the market**
- **Certification of product samples**



DMG MORI

*German-Japanese enterprise:
creation of pilot samples for
Industry 4.0*



Exhibition Complex

TOTAL AREA 2 700 sq.m.



**CONSTANTLY OPERATING
SITE FOR EXHIBITIONS
WITH THE PURPOSE TO
ATTRACT INTERNATIONAL
PARTNERS AND INVESTORS**

- ☐ Demonstration of achievements in the field of science and education
- ☐ LCD panels in the exhibition area for placement of video content
- ☐ Coworking Center
- ☐ Meeting rooms
- ☐ Organization of mentoring programs
- ☐ Rest zone
- ☐ Wi-Fi zone with a speed of up to 100 Mbps



The Best Cost



500 parking spaces



Atmosphere of technological entrepreneurship

in the city center