



The Ministry of Agriculture of the Republic of Kazakhstan
NPC 'National Agricultural Research and Education Center "
NPC "Kazakh National Agrarian University"

AgriTech Hub - center of innovations in sustainable campus development

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**Istanbul
2017**

Republic of Kazakhstan

- Kazakhstan is one of the largest countries of the world, and takes **9th** place by the territory, has a great potential for the development of agriculture
- The territory of Kazakhstan is more than **272 million** hectares, including **217 million** hectares is agricultural land, accounting for **4%** of the world's resources
- The population of Kazakhstan is **17.7 million** people. Approximately 7.5 million people live in 6693 villages. These are **43%** of the total population of the Republic of Kazakhstan.
- Currently about **185 thousand** agro formations produce agricultural products in the country, 96% from them are peasant farms
- The country has great opportunities to increase the production of organic food based on the development of organic agricultural productions

Kazakhstan brands



Grain and flour



Meat



Milk products



Kazakhstan aprot

CHALLENGES OF KAZAKHSTAN

- To develop branches with multiplicative effect, therefore agriculture should become the driver of economy

The new governmental Program of Agrarian-Production Complexes Development is adopted for 2017-2021, new laws on “Agricultural Cooperatives” and “On Pastures” are being implemented.

It is planned to unite in cooperatives more than 500 000 private farm households. New measures of state support on agricultural cooperatives are being introduced, particularly financing of family dairy farms, feedlots, service procuring centers.

HISTORY

1929 – Almaty Zooveterinary Institute was founded

1930 – Kazakh Agricultural Institute was founded

1996 – Kazakh State Agrarian University was founded on the basis of these two Institutes






2001 – The status of the National University was awarded by the decree of the President of the Republic of Kazakhstan N.Nazarbayev

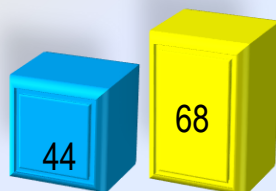
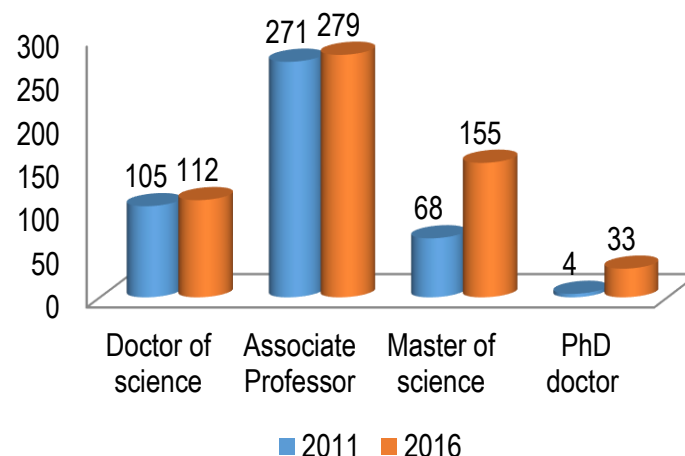
2010 – The status of the innovation-oriented university was awarded



EDUCATIONAL ACTIVITIES

University staff

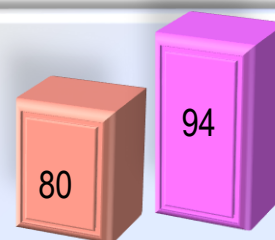
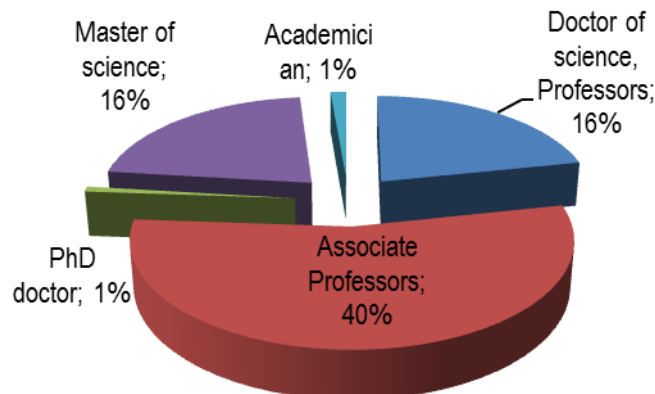
-  **16** academicians of NAS of the RK
-  **112** doctors of sciences, professors
-  **279** candidates of sciences
-  **33** PhD
-  **155** masters of sciences



2011

2016

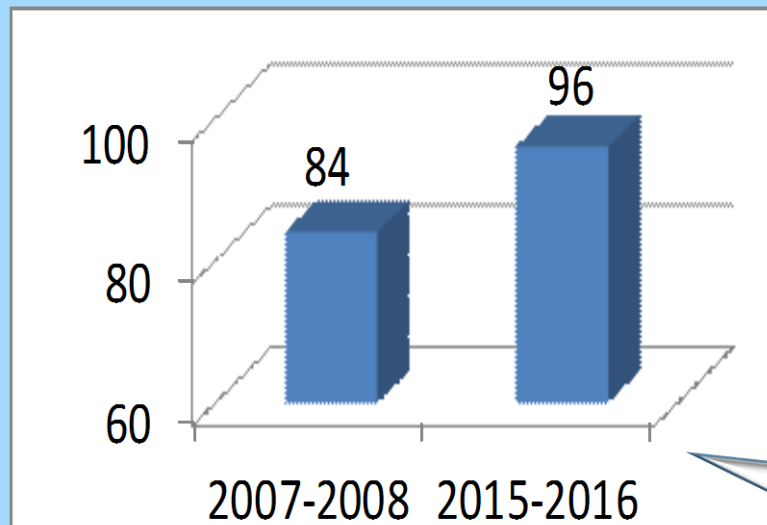
attracted foreign scientists



2011-2012 2014-2015

«Best staff of University» grant holders

Number of educational programs



41 – Bachelor
39 – Master's
16 - Doctoral



At 6 faculties about 10,000 students of 27 nationalities are enrolled. In university created all the conditions for educational activities and scientific research. There are well-developed scientific infrastructure, which makes it possible to carry out research at a high level; 6 research institutes, 31 research laboratories, 8 innovation centers, 10 academic buildings.



Transformation of KazNAU to Research University

- In 2002 adopted the first concept of integration of education, science and production. Studied the world experience of transformation of the universities in the research University.
- In 2010, on the basis of an agreement with the Union of project managers of Kazakhstan (Guild) A. F. with the use of international standards of project management University one of the first began a process of transformation into a national research University.
- On the basis of international experience we have identified 13 international experts from different continents, with them contracts about cooperation.
- Identified points of growth of competitiveness of the University on the main areas of activity. Developed a strategic plan for the development of the University up to 2021, which linked the mission and vision with stated government objectives. Generated a portfolio of projects.
- Identified five key development priorities of the University. Developed steps and milestones of the transformation. With the participation of international experts conducted master classes, seminars, conferences online. Only a trained rector, deans, heads of departments, teachers, undergraduates and doctoral students in the amount of 420 people.














INTERNATIONAL EXPERIENCE OF INTEGRATION OF EDUCATIONAL AND SCIENTIFIC PROCESSES WITH THE BUSINESS ENVIRONMENT



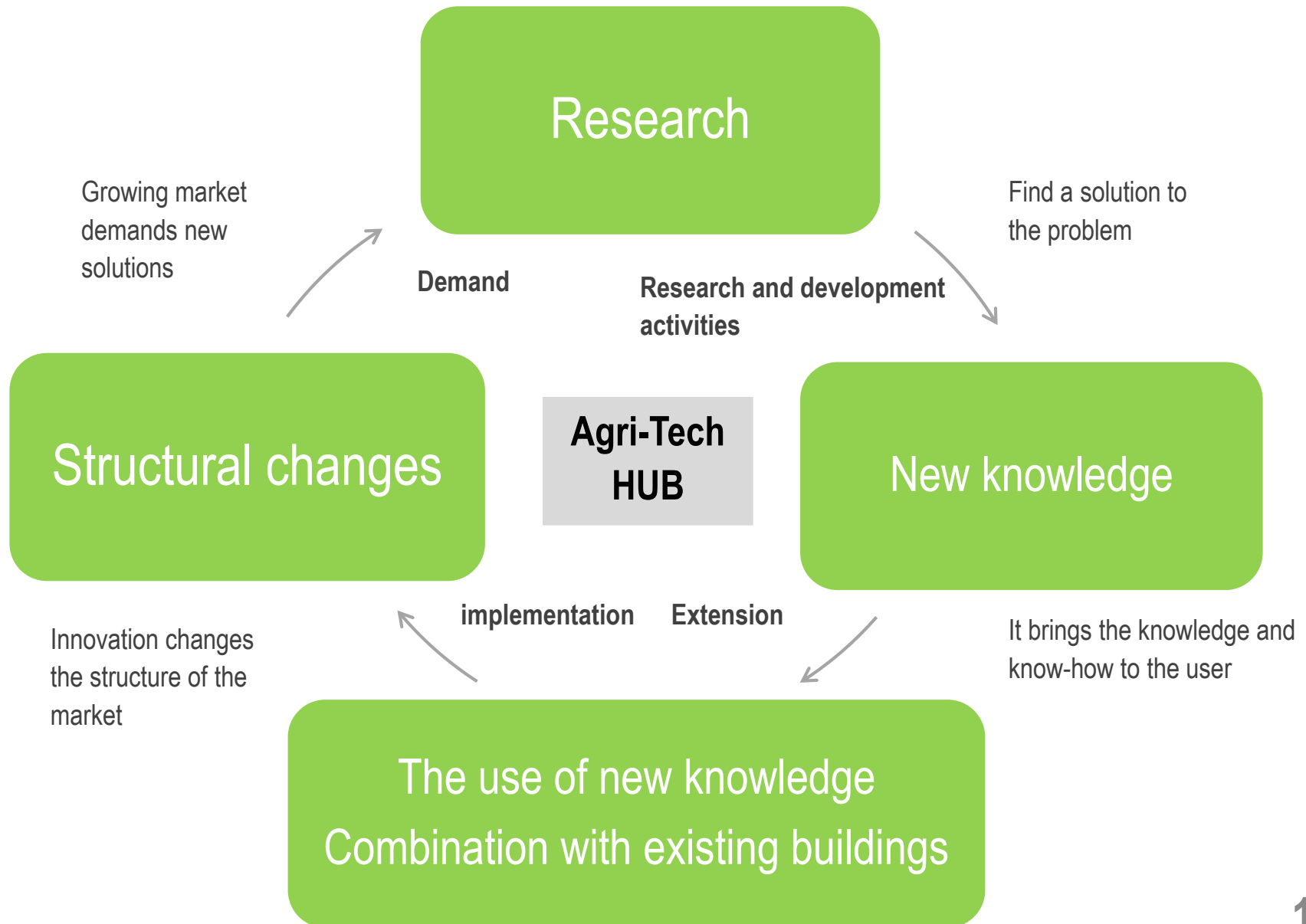
Specialized organizations – operators are created in order to manage the processes of scientific research and the dissemination of their results in practice, combining scientific research, experimental and auxiliary organizations involved in the research process of agrarian profile: national Institute for agricultural research (INRA, France, the second in the world by number of publications and citations); national Institute of agricultural technology (INTA, Argentina); Brazilian agricultural research Corporation (EMBRAPA) and others.



International experts of KazNAU in transformation into research university

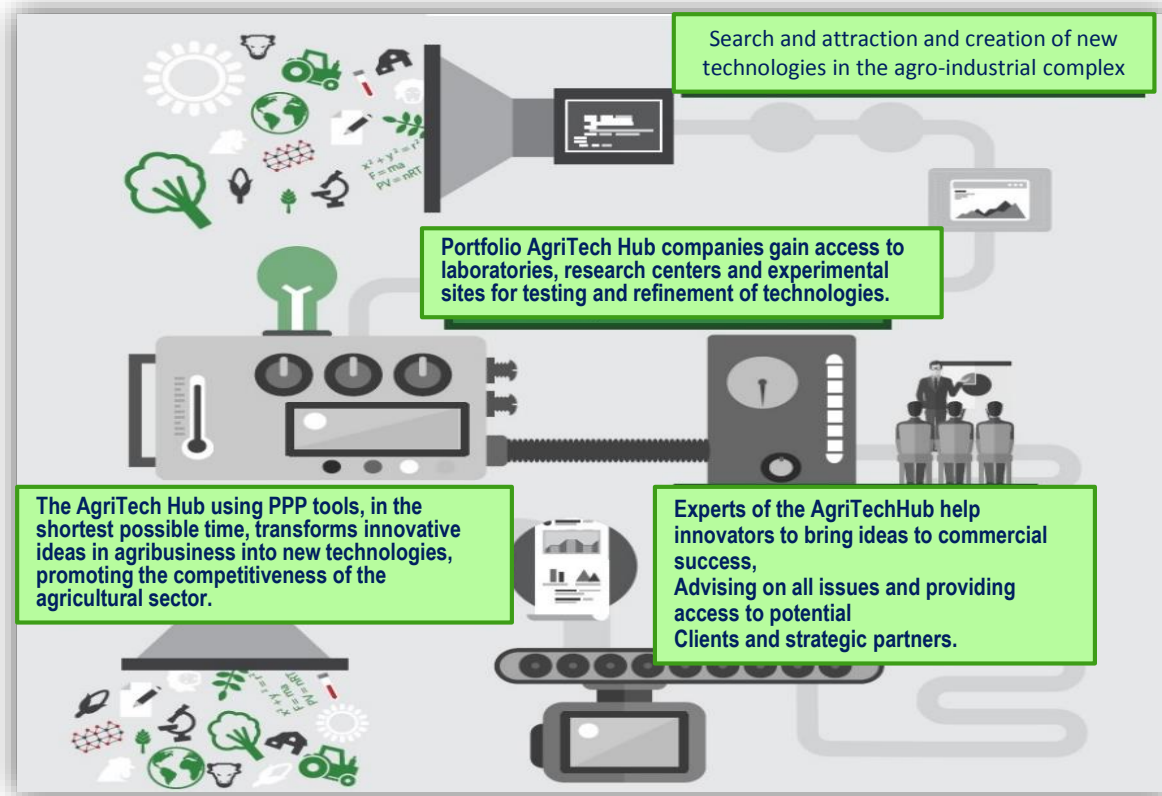
	Wageningen University, The Netherlands	International expert	Eva Wietsma		University of agriculture in Nitra, Slovakia	Dean of the faculty of Economics and management	Yelena Horska
	Ljubljana, Slovenia	The Director of the Institute for sustainable innovative technologies	Igor Emri		University Putra, Malaysia	Professor, Department of food engineering	Us Aniza
	Belastok, Poland	Professor of international research center of pesticides	Bozena Lozowicka		University Of Eastern Finland	Professor, Institute of public health and clinical nutrition	Atte von Raitt
	Plovdiv, Bulgaria	Professor at University of food technologies	Simon Zelasko Iliev		Moscow Timiryazev Agricultural Academy	Vice-rector for innovative development	Kozlov D.V.
	France	President of University LaSalle	Philippe Shock		FAO, France	Consultant and project Manager for science CIRAD	Bernard Faye
	Moscow, Russia	Director Institute of hydraulic engineering and land reclamation	Kizyaev B.M.		University Of Basel, Switzerland	Professor, Department of Biomedicine	E. Fasler-Kahn
	Iowa state, USA	Chairman of the Board of the National center for food and Agricultural policy	Stenley Johnson				

AgriTech HUB



Model of AgriTech Hub

AgriTech Hub is a platform providing interaction of agrarian science, education and production. In addition, in cooperation with the best foreign partners, AgriTech Hub will ensure the transfer of new technologies and knowledge in the shortest possible time, thereby increasing the competitiveness of the agricultural sector of the republic as a whole.



Advantages



Search and attraction and creation of new technologies in the agro-industrial complex



Creation of new jobs



Stimulation of research work in the agro-industrial complex

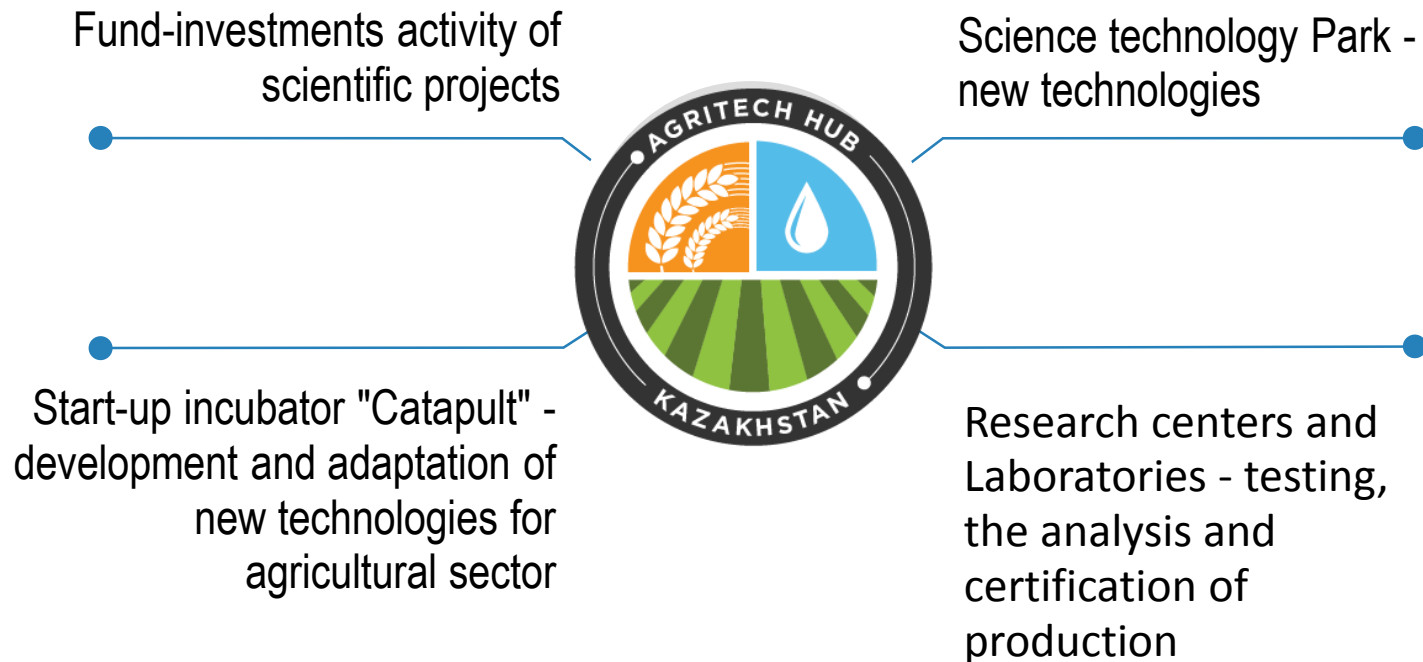


Commercialization of the country's scientific potential

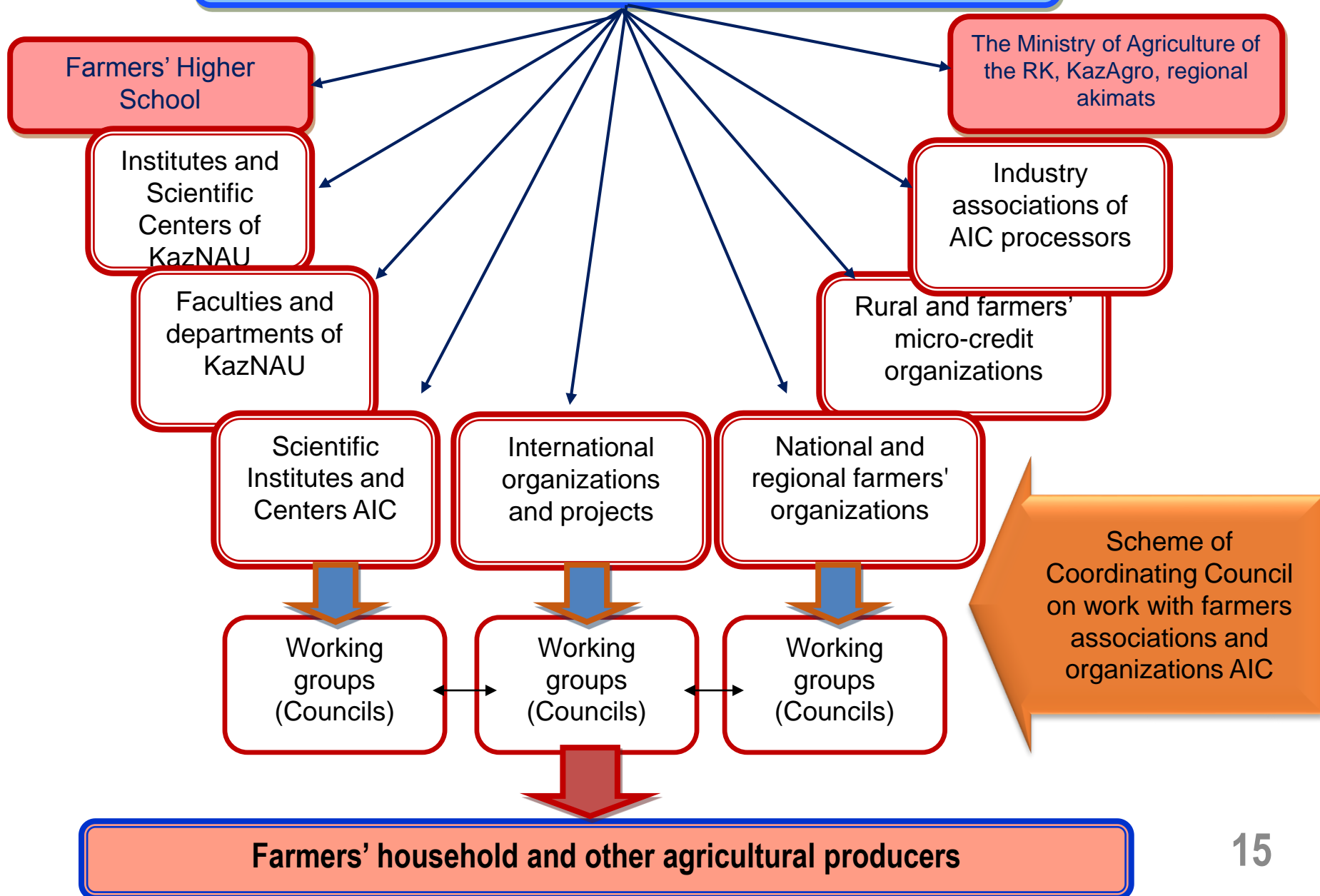


Import replacement of new technologies in the agricultural sector

AgriTech Hub: STRUCTURE



The Coordination Council for the Extension System



LABORATORIES OF KAZAKHSTANI-JAPANESE INNOVATION CENTER



Food and ecological safety



Scientific-
diagnostic



Radio- biological safety



Engineering profile
«Electronic microscopy»



Water quality assessment

Water Innovation Centre

Water Centre provides monitoring of water objects, conducts research on quality of natural and wastewaters, deals with the design of hydraulic constructions.



KAZAKHSTANI-KOREAN INNOVATION CENTRE

The center conducts training sessions for managers and professionals involved in the cultivation of crops in greenhouses, creating modern poultry farms and the introduction of highly productive breeds of birds. Launched "Smart greenhouse", where fully automatic climate control system allows increase yield and quality of crop growing.



INNOVATIVE GREENHOUSE





**Demonstration site at
KazNAU**

**Testing area at educational-
production facility
“Agrouniversity”**

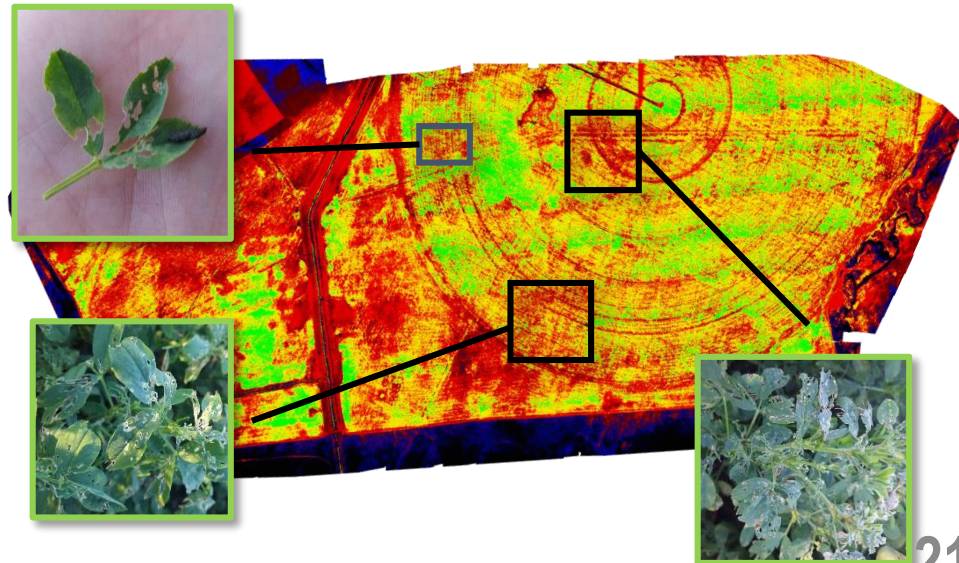
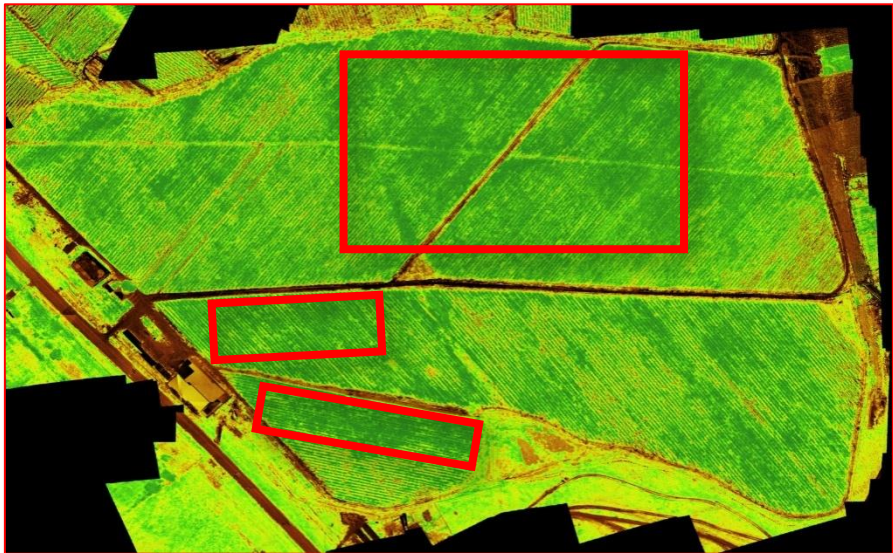
Training rooms



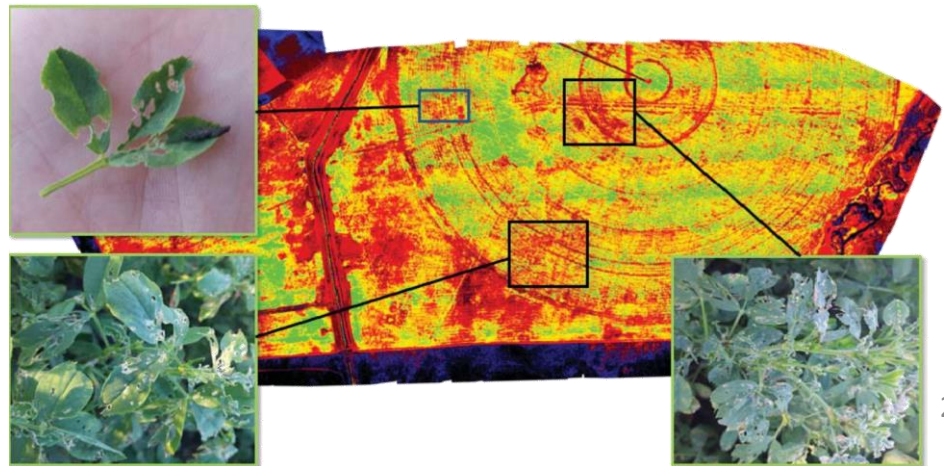
CENTER FOR SUSTAINABLE AGRICULTURE



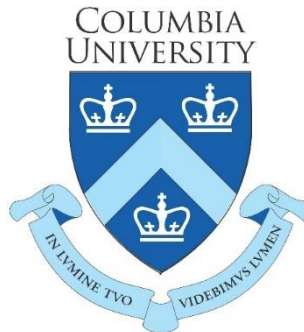
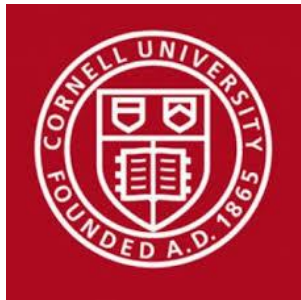
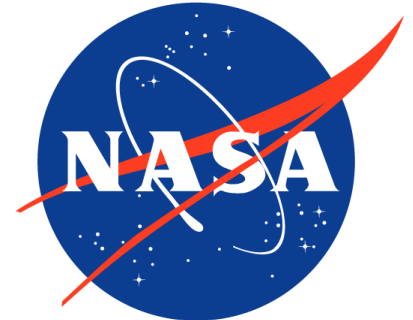
Centre of Sustainable Agriculture has been opened recently at the University, which conducts sounding of agricultural land by unmanned vehicles - drones.



The Flyworx Company is engaged in remote sensing of farmlands with use of drones, GreenPoint Marketing - analytics and market researches, UrbanGreen - innovative greenhouses of city type, DragonFly - training of use of drones and their designing. Start-ups are also created: fast veterinary help, aquacultures, ecoprobiotics and others



Our partners



MICHIGAN STATE
UNIVERSITY

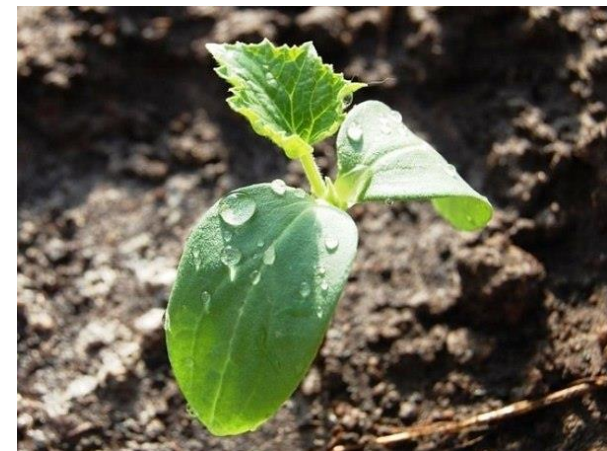


UNIVERSITY OF
EASTERN FINLAND



WAGENINGENUR
For quality of life

The training of practice-oriented experts- auditors and specialists with skills of conducting complex laboratory physical- chemical analysis , phytoexpertise and analytical research of probes for absence of toxical and dangerous substances for domestic agrarian market.



Kazakh National Agrarian University:

- a large scientific and educational agrarian center that meets the international criteria of the research university;
- providing qualitative training and retraining of specialists for all sectors of the AIC of the Republic of Kazakhstan;
- the main integrator of the development of agrarian science, education and production.





All innovative activities of the University are aimed at providing high-quality training of highly qualified specialists, implementation of scientific results in production, which will allow sustainable development and increase of agricultural production; To increase the output of export-



Kazakh National Agrarian University

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