Belgorod region government

REC "Innovative Solutions in Agri-business"

НИУ БелГУ BELGOROD STATE UNIVERSITY (BSU)

World–class research and education centre (REC)

Innovative Solutions in Agri-business

2020

Belgorod region formed January 6, 1954

Belgorod region government

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2713,4 k hectares
Total area

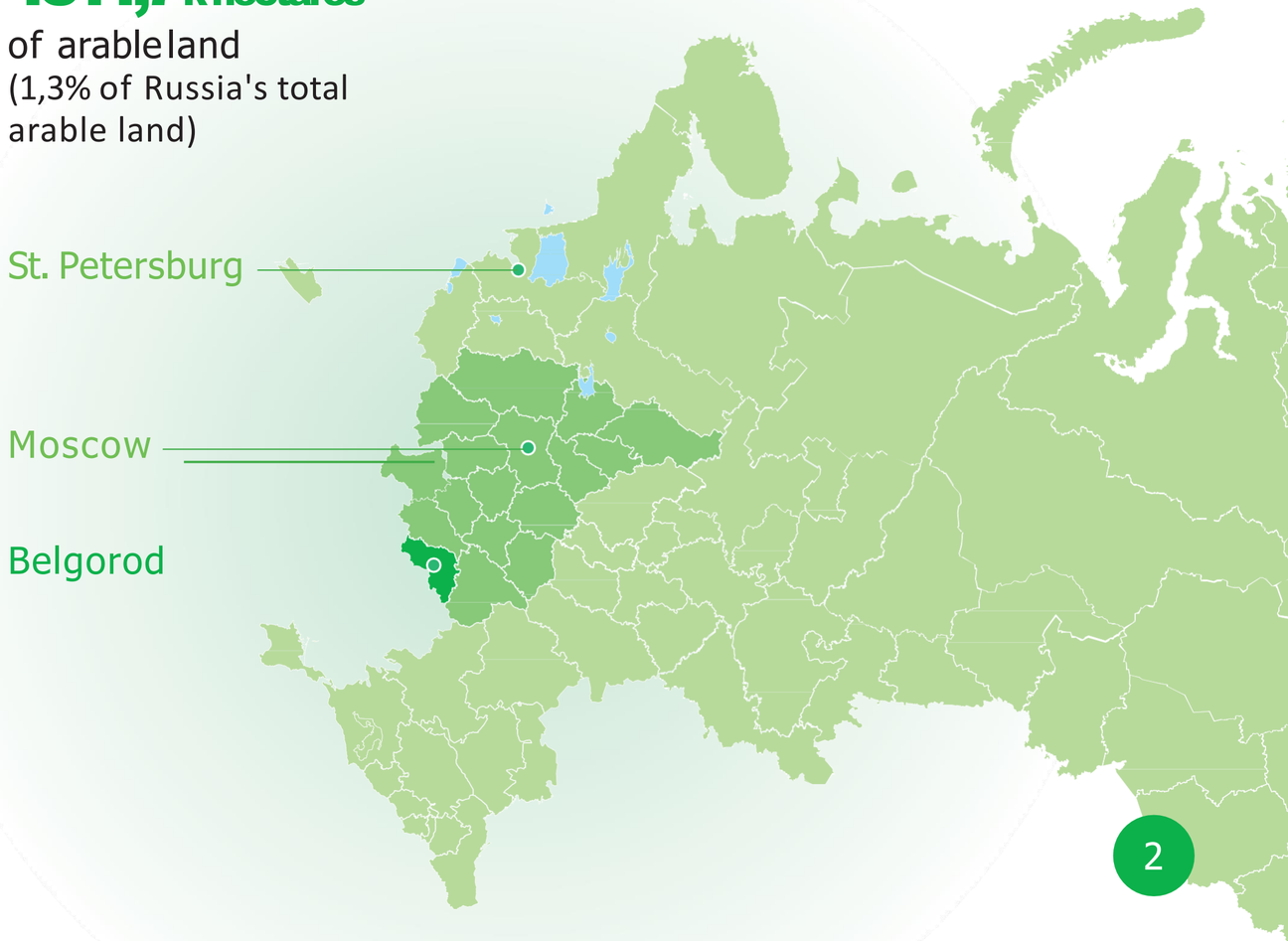
2134,3 k hectares
of farmland
(1% of Russia's total farmland)

1511,7 k hectares
of arable land
(1,3% of Russia's total arable land)

Region population

1,547,4 k
(1,1% of Russia`s total population)

~ 77%
of farmland consists of Chernozem soils



Belgorod region's share in Russia's total agricultural production

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5%

of Russia's gross agricultural output

7,5%

of industrial agriculture

12%

of the Russian meat market

20%

of meat products

Over 4%

Of the total national agricultural production

18%

of pork

12%

of poultry

19%

of compound feed

13,7%

of condensed milk

Over 1,5%

Of the national export of agricultural products

9,5%

of vegetable oil

12,4%

of spreads

7%

of beet sugar

11,3%

of mayonnaise

6,9%

of premixes

4%

of chocolate and pastries

Uniqueness of Belgorod REC

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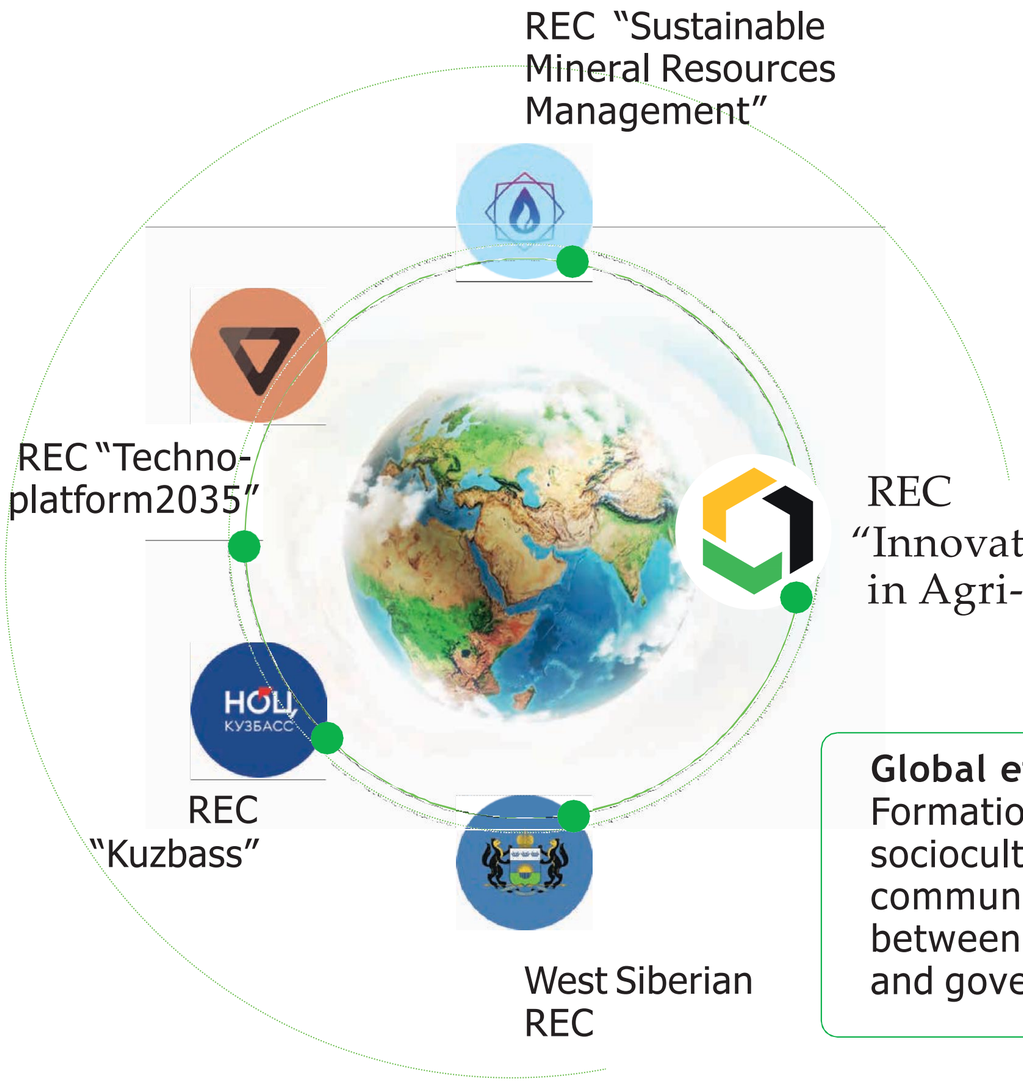


Global effect of REC
Formation of new sociocultural, ideological and communicative connections between science, business and government

Answering to the major global challenge (feeding people)

Human Capital Development Lab

First-class employer

Innovative growth area for economy

Favourable geographic location for international partnerships

Competitive innovations:

- HERMETIA
- KWS
- SaKa Pflanzenzucht GmbH & Co. KG (Solana-Gruppe)
- Matthiessen
- Hexis
- Sunfire

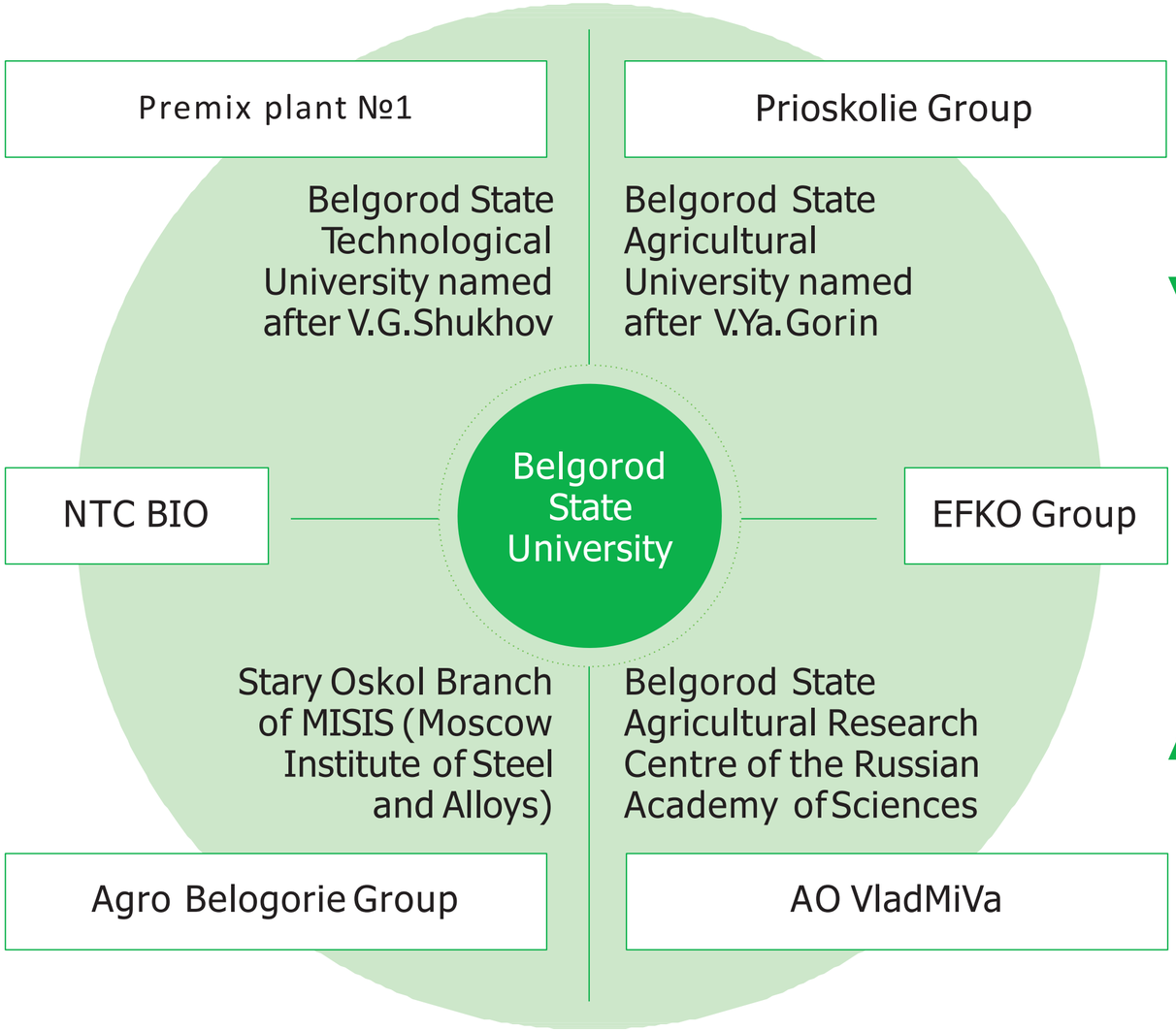
Priority goals of research and education centre

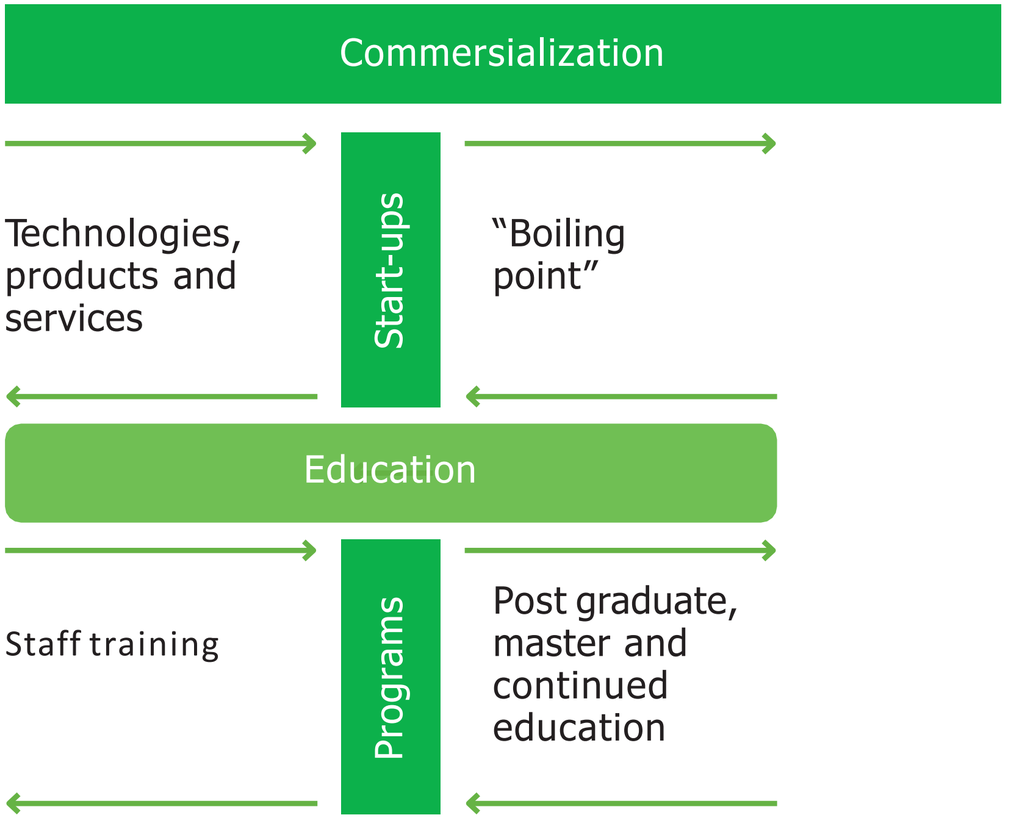
Development in compliance with the national priorities in research and technology

Increase of the agricultural industry potential due to commercialization of the research results

Development of the education system to train highly qualified staff for agricultural sector

Cooperation of REC participants





More than 50 scientific and industrial partners

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UNIVERSITIES
and other higher educational institutions

RUSSIAN RESEARCH INSTITUTES
(including Institutes of Russian Academy of Sciences)

REC PARTICIPANTS +

Organizational structure of the research and education centre

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Supervisory board
Chair – Governor of Belgorod region

Management board

Research and production platforms (RPP)
under the direction of Russian Academy of Sciences

- Bio-technologies
  Chief Advisor
- Genetic-selection research, cellular technologies and genetic engineering (Plant breeding)
  Chief Advisor
- Genetic-selection research, cellular technologies and genetic engineering (Animal breeding)
  Chief Advisor
- Health protection, food and veterinary drugs production
  Chief Advisor
- Sustainable use of natural resources
  Chief Advisor

Project office

PROJECT PORTFOLIO

Project teams → **Technologies transfer** → **Corporation "Razvitie"**

Research and production platforms

31
PROJECTS of full cycle

5
Bio-technologies

7
Genetic-selection research, cellular technologies and genetic engineering (Plant breeding)

5
Genetic-selection research, cellular technologies and genetic engineering (Animal breeding)

9
Health protection, food and veterinary drugs production

5
Sustainable use of natural resources

2024

15

New assets of infrastructure

Resource Sharing Center

Research Institute of Genomic Selection

Centre of Agricultural Engineering and End-To-End-Technologies

AgroTechnopark

Others

Educational Goal of the research and education centre

Development of the staff training system based on the new educational platform

+15
programs master, post-graduate level

+20
programs continued education

Centre for competences development

Dissertation council

200
Doctors of Science

500
Candidates of cience

2500
Undergraduate and post-graduate students

Partners of Belgorod REC and companies submitted in Belgorod region

Weihenstephan-Triesdorf University of Applied Sciences

Justus Liebig University Giessen

DEULA-Nienburg
German School of Agricultural Engineering

Universität Hohenheim

SPF RUS, LLC SYMRISE AG

Dr. Oetker

Hochland

ZMS-TECHNOLOGY

Innovative technologies

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Technology of microbiological L-threonine synthesis

Technologies for new biological products based on biologic synthesis

Growth stimulators and crop protection agents based on metal nanoparticles

Technology of three-phase soy hulls fermentation

Platform with intellectual artificial vision for animal condition monitoring

Technology of production of protein sugar substitute

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Industrial application of competitive technologies generated by REC

L-threonine production plant with annual capacity of

16 000 tons

Protein meal production plant with

2840 tons capacity by 2024

Soy hulls fermentation plant with daily capacity of

100 tons

Sugar substitute production plant with daily capacity of

100 kg

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Indicators of implementing the research and education centre program

+3000

new high-tech workplaces

25%

increase in share of advanced high-tech products in the total amount of shipped products

50%

researchers aged 39 in the total number of researchers

+120

patents for inventions

Prospective outcomes

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REC "Innovative Solutions in Agri-business"

>15

billion rubles

FINANCING

+20%

gross regional product

in comparable prices on 2018

1.2 trillion rubles

25%

increase in innovative activity of businesses

> 2.5 times

volume of exports of agri-business products

>2.5 billion US$

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Thank you for your attention!