



The implementation of ESG standards in the professions of the future agro-industrial sector

Vladimir Trukhachev

Academician of Russian Academy of Sciences, Professor, Dr Sci

Rector of Russian Timiryazev State Agrarian University

Chairman of the Association of Agricultural

and Fisheries Educational Institutions

Round table «Agricultural education as an investment in the future»

EXPO 2020

Features of the Russian agro-industrial sector

- **Objects of activity:** soil, plants, animals, birds, microorganisms and agroecosystems
- **The results** greatly depend on soil and climatic conditions
- **Productivity, quality and cost of production** are determined by the quality of land, the choice of variety /hybrid/breed and the best available agricultural technology
- Rapid development of **agricultural technologies**
- High **demand dynamics**
- Regional features of the manifestation of **global climate change**
- **National features of standards**



The professional staff member must have **diverse knowledge and regularly update them**

High-priority targets for the production development of improved agricultural products, raw materials and “Green Standard” food in Russia



1

Improving the environmental quality of products according to the pollution absence criteria

2

Improving the technological quality of products (for example, increasing the protein content)

3

Increase of controlled yield taking into account soil quality and forecast of weather conditions

4

Improving the economic efficiency of production (profitability, income)

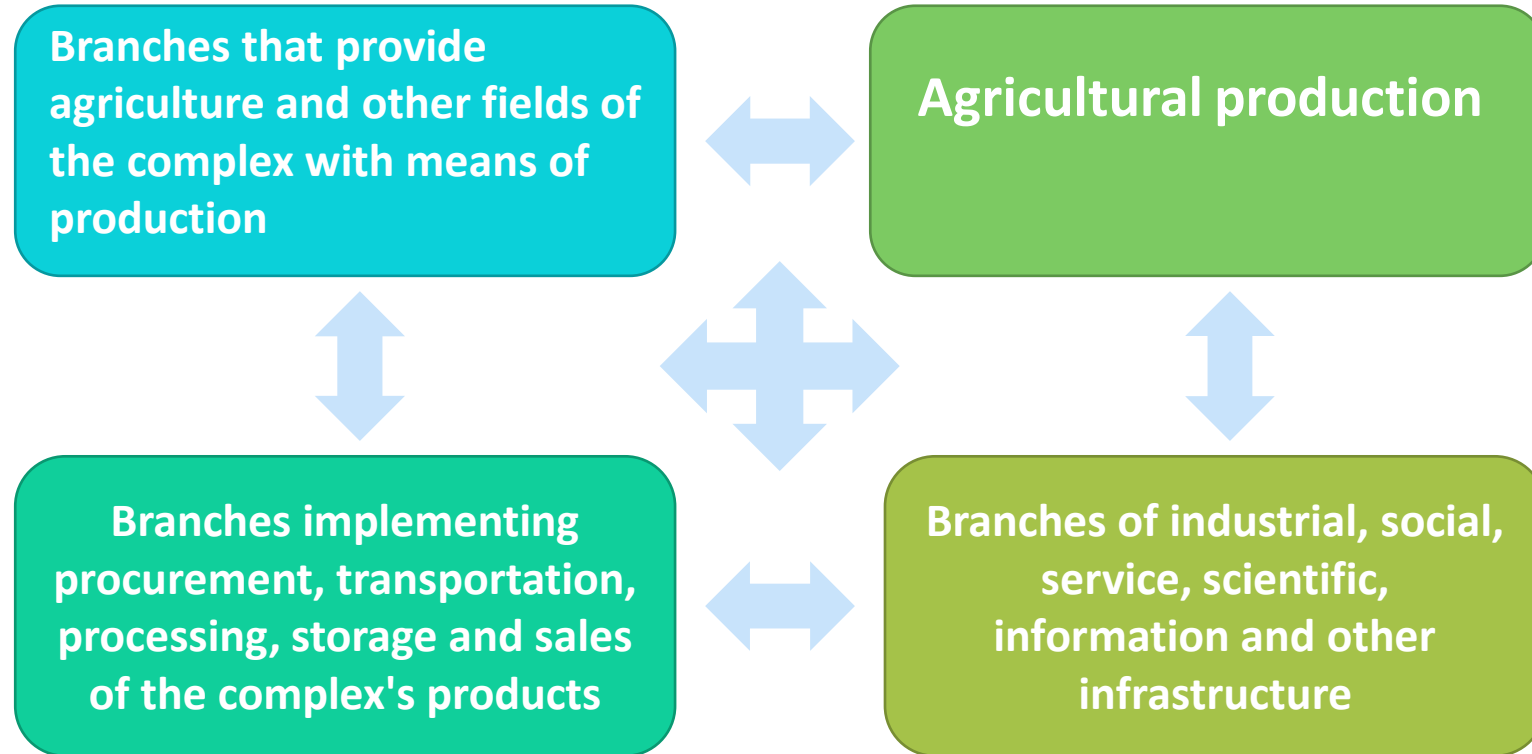
5

Transfer of the best available agricultural technologies, expansion and optimization of production location

6

Certification of products and production

Adaptation of agricultural curriculums to global challenges and technologies of agro-industrial sector 4.0



- + Certification
- + Marking
- + Accreditation
- + Localization
- + Monitoring





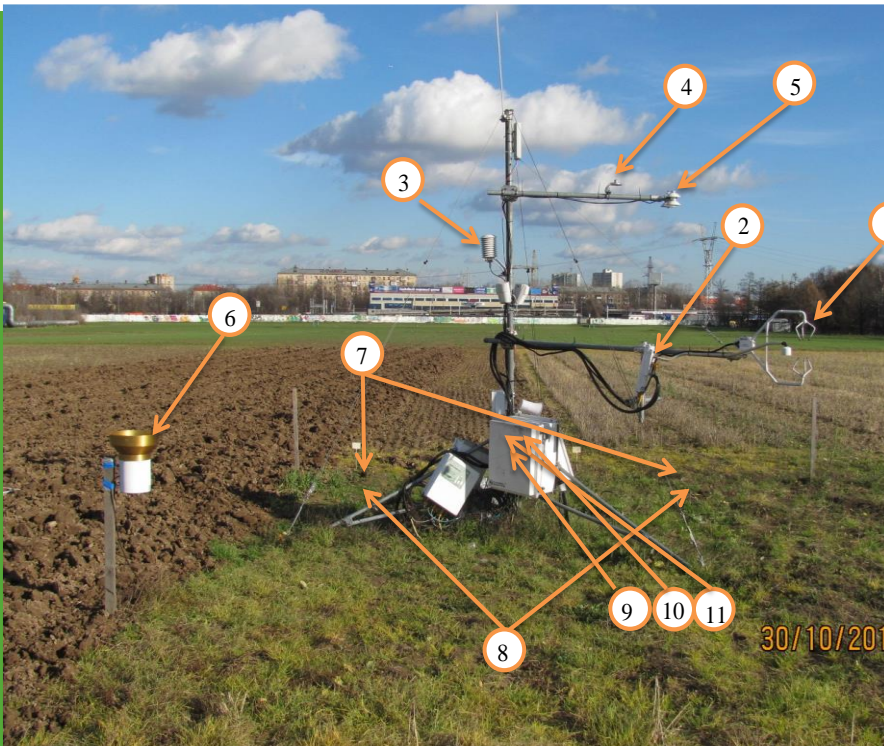
The Timiryazev Academy has always paid special attention to the issues of synchronizing educational programs with the demands of the labor market

Example: synchronization of curriculums with agroecology requests

- ✓ 1993 year – the beginning of training in the complex specialty «Agroecology»
- ✓ 1998 year – establishing of the Center for Sustainable Rural Development
- ✓ 2011 year – establishing of the Agroecological Monitoring Laboratory with the invitation of Riccardo Valentini as a leading scientist. Riccardo Valentini is the 2007 Nobel Peace Prize laureate and the best ecologist in Europe in 2015
- ✓ 2022 year – basic direction «AGROECOLOGY» in the field of «Ecology and environmental management»

EXPERT OF THE «GREEN
PROJECTS»

The main directions of research and training of professional staff members in the field of agroecological monitoring



1

Agroecological monitoring within the framework of the World-Class Scientific Center «Agrotechnologies for the Future» established in 2020

2

Increasing of seasonal yield forecasts both in a specific field and region to 90% accuracy

3

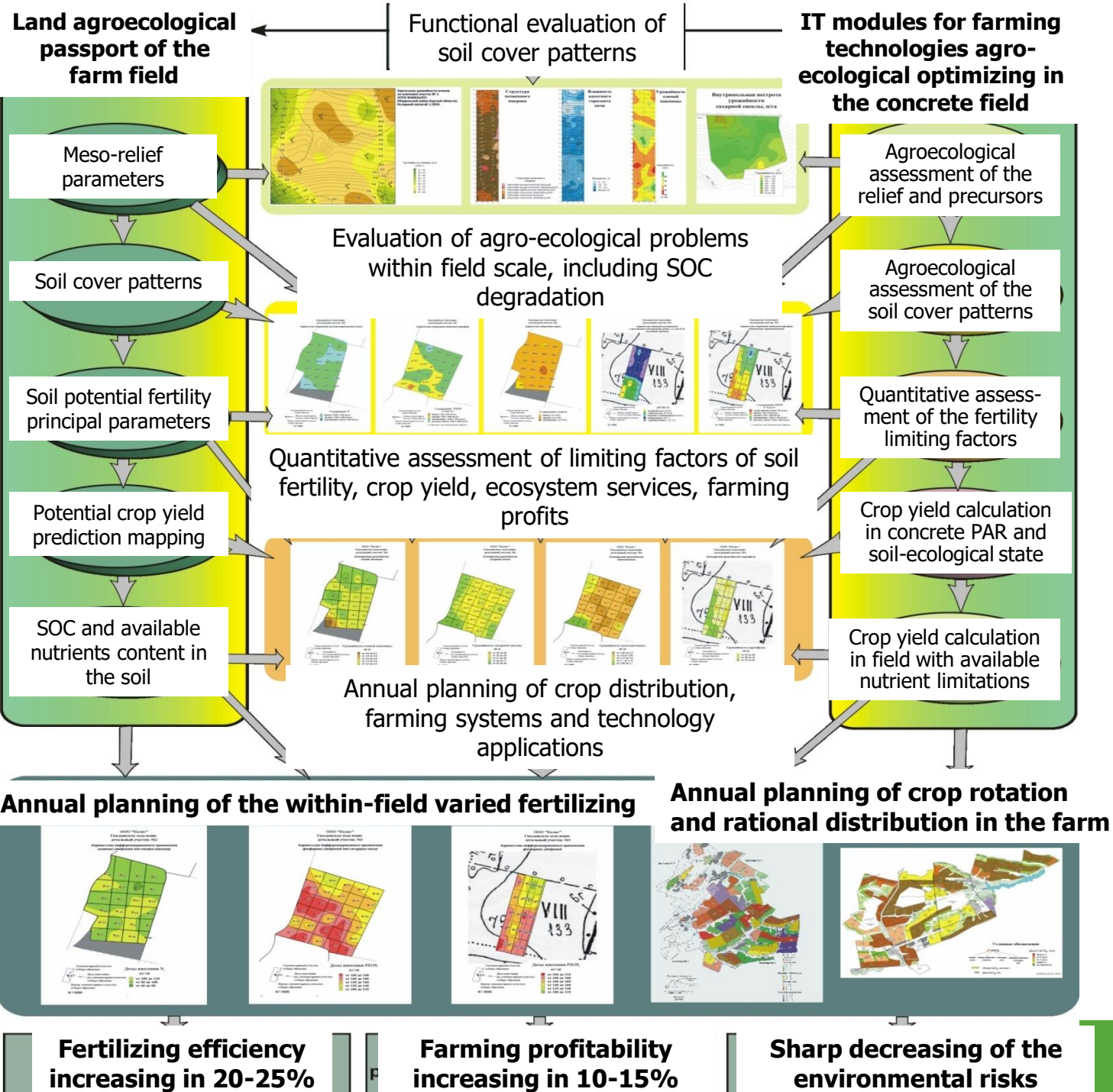
Opening of the Master's program «Environmental Monitoring and Design»



Active use of the most advanced domestic and international practice

An example of agroecological decision support system structure (DSS):

- for expert and analytical tasks
- for the design of farming systems and the production of improved agricultural products, raw materials and food in Russia
- in consideration with a particular region and economy



Modernization and digitalization of the Soil and Agronomic Museum named after V.R. Williams



Food and Agriculture Organization of the United Nations



GLOBAL SOIL PARTNERSHIP



- ✓ 900 soil monoliths, 100+ years old
- ✓ 35,000+ boxed samples
- ✓ 40 000+ herbarium units
- ✓ 100+ painting objects

Summer schools at the RSAU-MTAA Ecological Station (MOSES)

- ✓ 9 summer schools
- ✓ 350+ members
- ✓ 16 countries
- ✓ 10 federal subjects of the Russia





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