SAGRIS

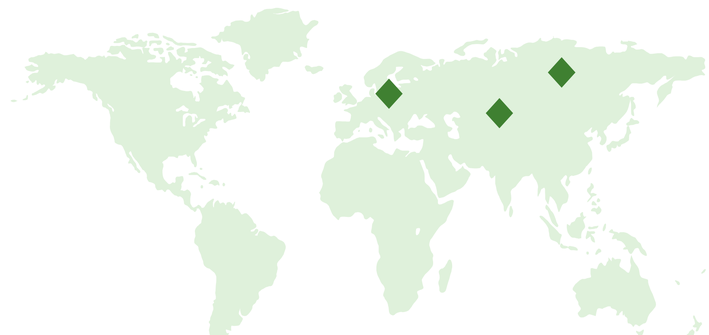
Capacity building in Higher education

Module 1 „SMART Agriculture and Digitalization“

Digitalization is actively introduced and applied in agribusiness. This requires that young scientists, graduate students and doctoral students should know the technologies and methods of smart agriculture, technologies that automate and control processes on farms, accelerate big data processing and solve specific problems in the field of agriculture.

This innovative module "SMART Agriculture and Digitalization" has been developed on the basis of advanced experience and best practices in cooperation with partners from universities in Germany, Czech Republic and Poland and was elaborated in line with European quality assurance standards. The module aims to train young scientists of a new type, who are able to make a scientific and technological revolution in the agricultural sector.

Module working group 1



38 participants

16 meetings

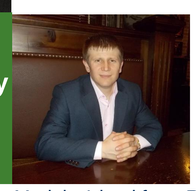
4 workshops

38 reports

Prof. Dr. Heinrich Schuele

Module 1 lead from EU part
Nuertingen-Geislingen University, Germany

Dr. Vitalii Tikhonovskiy



Module 1 lead from RU part
Novosibirsk SAU, Russia

Dr. Kuanysh Zholamanov

Module 1 lead from KZ part
Kazakh NARU, Kazakhstan

2020

- ✓ Establishment of international scientific groups;
- ✓ Module template elaboration;
- ✓ Competencies and learning outcomes in line with Dublin descriptors;
- ✓ Scientific cooperation and capacity building.

2021

- ✓ Pilot training of the materials within the scientific community;
- ✓ Thematic workshops;
- ✓ Pilot training and 1st Block Seminar on the Module;
- ✓ Elaboration of Module Toolbox.

2022

- ✓ Pilot training and 2nd Block Seminar on the Module.
- ✓ External evaluation and quality assurance of the Module.
- ✓ Study trips and module content.
- ✓ Introducing the Module into curricula of PhD-programmes of Russian and Kazakhstani Universities.

Module 1 describes the technical basis of the smart farming tools and digital technologies used in agricultural production. PhD-students are able to demonstrate their understanding of the potential of digital technologies and Smart Farming methods for increasing the resource-efficiency of agricultural production. Doctoral students are able to estimate resource-efficiency in farming systems.

S Resource-efficient approaches for sustainable agriculture

M ICT based technologies in agriculture and Smart Farming Tools

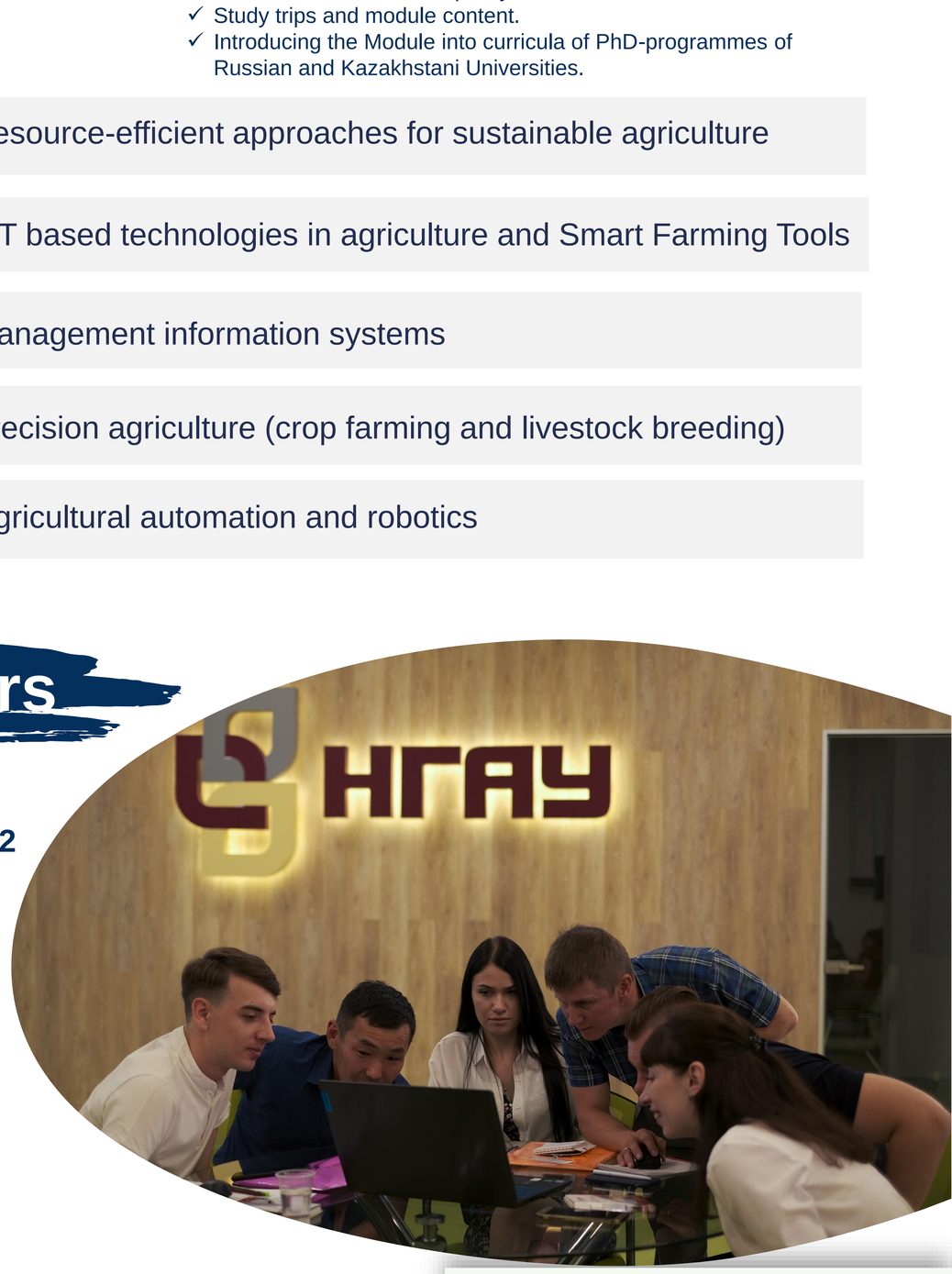
A Management information systems

R Precision agriculture (crop farming and livestock breeding)

T Agricultural automation and robotics

SAGRIS Block Seminars

1st Block Seminar: 14-18 June, 2021
2nd Block Seminar: 28 February – 4 March, 2022



HfWU Nuertingen-Geislingen University
Project coordinator:
Hochschule für Wirtschaft und Umwelt Nürtingen-Geislingen
Neckarsteige 6–10, D-72622 Nürtingen | www.hfwu.de

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